

governmentattic.org

"Rummaging in the government's attic"

Description of document: Reports of the Tolman Committee on Declassification,

1946

Source of documents: <u>US Army</u>

Accessed date: 11-November-2025

Posted date: 17-November-2025

The governmentattic.org web site ("the site") is a First Amendment free speech web site and is noncommercial and free to the public. The site and materials made available on the site, such as this file, are for reference only. The governmentattic.org web site and its principals have made every effort to make this information as complete and as accurate as possible, however, there may be mistakes and omissions, both typographical and in content. The governmentattic.org web site and its principals shall have neither liability nor responsibility to any person or entity with respect to any loss or damage caused, or alleged to have been caused, directly or indirectly, by the information provided on the governmentattic.org web site or in this file. The public records published on the site were obtained from government agencies using proper legal channels. Each document is identified as to the source. Any concerns about the contents of the site should be directed to the agency originating the document in question. GovernmentAttic.org is not responsible for the contents of documents published on the website.

р

 \cap



2 November 1945

1 des wy

Dr. R. C. Tolman,
Dean of the Graduete School,
California Institute of Technology,
Pasadena, California.

Dear Dr. Tolman:

It is essential that we carry out in an orderly manner the declassification and release of information obtained as a result of the work in the Manhattan Project if the security of such information is no longer important to the welfare of the United States.

I have asked a number of our scientific leaders to act as a committee to aid in the formulation of a suitable program. Subsequent to my discussion with you, I have obtained the concurrence of the following named persons to act on such a committee with you as Chairman:

Dr. E. O. Lawrence

Dr. A. H. Compton

Dr. H. C. Urey

Dr. F. H. Spedding

Dr. R. F. Bacher

Dr. J. R. Oppenheimer

Lt. Colonel J. R. Ruhoff

Colonel Ruhoff will not have a vote in any proceedings.

I have also obtained the concurrence of the following persons to act as a subcommittee on declassification and release of medical information:

Colonel S. I. Warren (Chairman)

Dr. R. S. Stone

Dr. Andrew H. Dowdy

Dr. Louis Hempelman

Dr. Joseph Hamilton CL

DATE The Atomic Engray Commission Chiloff Deviassification Branch



It is intended that this subcommittee will report to your committee and that final recommendations on medical matters will be made by your committee.

The objective of your committee is, in consideration of both the national security and the national welfare, to recommend to me a program on the declassification and release of information. Your report should include recommendations on:

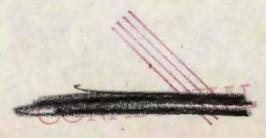
- a. The extent to which information obtained on the work

 of the Manhattan Project should be declassified.
- b. The detailed rules to be followed in such declassification.
- c. The extent to which information obtained on the work of the Manhattan Project which will remain classified may be released to qualified individuals and organizations.
- d. The detailed rules to be followed in such releases.

 I hope that your committee can complete its work at an early date.

Sincerely,

L. R. GROVES, Major General, USA.



THIS DOCUMENT CONSISTS OF 17 PAGE(S) NUMBER 2 OF 1 COTTES. SERIES 9

By Authority of the District Engineer

PER hunnels Classification changes to By authority of the W.S. Chanic bream Co Per HQFilled Date: October 7, 1948

17 November 1945

RETENTION CATEGORIES

MEMORANDUM TO Major General L. R. Groves

SUBJECT: Report of Committee on Declassification

Dornalny from established policy Letter received the later actions

eniclectus distriction B. Six Years: ___Al others (Date of review) (Name)

A. Permanents

Attendance

In accordance with the request set forth in your teletype of 2 November to Dr. R. C. Tolman, a meeting of the Committee on declassification was held at the California Institute of Technology, Pasadena, California, on 12 and 13 November 1945. The following were present: Dr. R. C. Tolman (Chairman), Dr. R. F. Bacher, Dr. E. O. Lawrence, Dr. J. R. Oppenheimer, Dr. F. H. Spedding, Dr. H. C. Urey and Lt. Col. J. R. Ruhoff. Dr. A. H. Compton was unable to attend the first meeting of the Committee since his plans did not permit him to come to the West Coast prior to 1 December.

On 13 November, Colonel S. L. Warren, chairman of the medical Subcommittee, attended the afternoon meeting.

Selection of Secretary

Lt. Col. J. R. Ruhoff was elected Secretary to the Committee.

III. Selection of Names

The name "Committee on Declassification" was chosen for the principal Committee and the name "Medical Subcommittee on Declassification" was chosen for the medical Subcommittee.

Communications Presented for Consideration

The Committee gave consideration to your teletype of 2 November 1945 to Dr. R. C. Tolman in which the Committee was established

and its objective set forth.

CLASSIFICATION CA For the

Division of

on unauth



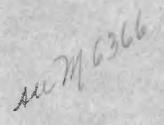
B. The Committee gave consideration to specific requests for the release of information which have been received by the Manhattan District from:

letter of 14 August 1945
letter of 27 August 1945
letter of 19 September 1945
letter of 20 September 1945
letter of 22 September 1945
letter of 22 October 1945
letter of 22 October 1945
letter of 23 October 1945

- C. The Chairman discussed with the Committee requests for advice relating to declassification matters which he had received from Professor R. S. Mulliken and Professor E. P. Wigner and stated that he would reply to their letters.
- D. The Committee gave consideration to suggestions on declassification as contained in the following memoranda:
 - 1. Memorandum dated November 9, 1945 to Dr. Farrington Daniels from Dr. A. J. Dempster.
 - 2. Notes prepared by Dr. R. H. Crist and brought to the meeting by Dr. H. C. Urey.
 - 3. Notes brought to the meeting by Lt. Col. J. R. Ruhoff.
- E. Colonel Warren presented a report giving the recommendations of the Medical Subcommittee on Declassification as to how information pertaining to medical information might be handled.

V. General Philosophy of the Committee

In accordance with your directive the Committee has considered the effect of release of information both on the national welfare and on the national security. In the interest of national welfare it might seem that nearly all information should be released at once. In the interest of national security a superficial consideration of the problem might lead to the conclusion that very little information should be released.





It is not the conviction of the Committee that the concealment of scientific information can in any long term contribute to the national security of the United States. It is recognized that at the present time it may be inevitable that the policy of the Government will be to conceal certain information in the interest of national security. Even within this limitation there are many matters whose declassification would greatly help the progress of science without violating that policy. If we are looking to the national welfare or national security as they may be two decades from now the Committee has no doubt that the greatest strength in both fields would come from a completely free and open development of science.

Thus, the Committee is inclined to the view that there are probably good reasons for keeping close control of much scientific information if it is believed that there is a likelihood of war within the next five or ten years. It is also their view, however, that this would weaken us disastrously for the future -- perhaps twenty years hence.

The recommendations made by the Committee in what follows are based on the above views of the problem. In particular, in order to carry out these views, it is proposed in Section VII that the information under consideration be assigned to the following categories: Class I: Information recommended for immediate declassification; Class II: Information whose declassification would conduce to the national welfare and to long term national security, so that the date of declassification should depend on estimates as to the probability and imminence of war; Class III: Information not at present recommended for declassification and whose declassification should await a real reduction in the threat of atomic warfare.

VI. Criteria Affecting the Declassification and the Transmission of Information

A. In considering the declassification and the transmission of information, the Committee concluded that it was appropriate to apply the following positive and negative criteria:

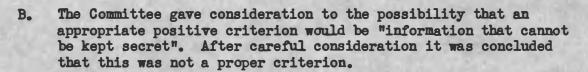
Positive Criteria

- 1. Advancement of general science.
- 2. Advancement of non-military aspects of nuclear science.
- 3. Advancement of military aspects of nuclear science.
- 4. Advancement of general technology.
- 5. Advancement of non-military aspects of nuclear technology.
- 6. Advancement of military aspects of nuclear technology.
- 7. Information already substantially known outside project.
- 8. Information readily obtainable by theory or minor experimentation.

Negative Criteria

- 1. Disclosure would jeopardize U. S. military security.
- 2. Disclosure would weaken U. S. position in international discussions.
- 3. Disclosure would jeopardize patent position.

pu m 6366



The Committee gave consideration to the possibility that an appropriate negative criterion would be "disclosure would not give fair credit to different workers". It was concluded that this is not an appropriate criterion for declassification but is an important matter to consider in connection with the publication of information.

- C. The Committee concluded that the relative importance of the criteria set forth above should be regarded as subject to change with time as follows:
 - 1. As experience is gained in declassification.
 - 2. As the state of general knowledge in the field changes.
 - 3. As the state of the art changes.
 - 4. As the international situation changes and as the formulation of policy by the Government progresses.

VII. Categories of Information

In order to make definite recommendations as to the declassification and the transmission of information the Committee decided, as outlined in Section V, that it would be desirable to divide all of the information to be considered into the following three categories:

- Class I: Information recommended for immediate declassification.

 Information whose declassification would conduce to the national welfare and to long term national security, so that the date of declassification should depend on estimates as to the probability and imminence of war.
- Class III: Information not at present recommended for declassification, and whose declassification should await a real reduction in the threat of atomic warfare.

Class I includes basic scientific information which has little direct application to the problems of production or military utilization. Class II includes certain basic scientific information which would be of great value to the development of science but which has a direct bearing on production or military utilization. It also includes technological information which would be of great importance for the peacetime utilization of atomic energy but which also has importance for production or military utilization. Class III includes information which has immediate application to the problems of military utilization but for the most part has little application to the development of science or to peacetime utilization. Included in





bombs, stock pile of bombs, etc. This inclusion in Class III is made in order to reserve to the President and the Congress the formulation and disclosure of national military ties, amounts of active material on hand, present output of bombs, stock pile of bombs, etc. This inclusion in Class this class are statements with regard to production capaci-

Classified Substances

designated as "classified substances" and have been listed in Table I, Page 6. It will be noted that five types of information as to these substances have been listed, and recommendations made for the classification to be given other persons in the project. apparent that certain elements and compounds would require special consideration. These substances have been assigned to the three classes set forth above, it became In considering the manner in which information should be is possible that further substances should be added this list as the Committee discusses the matter with each type of information for the different substances.

stances: After due consideration it was agreed that the materials listed below need not be designated as classified sub-Lonium Fluorine Beryllium oxide

Fluorocarbons Plastics Hydrofluoric acid



TABLE I List of Classified Substances

Substance (1)(2)	Basic Chemistry	Metallurgy	Basic Physics	Nuclear Physics	Technology (3)
Deuterium Tritium Beryllium Bl0 (7)		= 1	I	I I (4) I (6) I	II III (5) II II
Tel35 (8) Polonium Thorium Th ²³³ Protoactinium		II II	I I	II II II II	III III III III
Uranium U230 U233 U235 U236 U238	I	=======================================	I	II II II II II	II III III III III
Neptunium Np237 Np239 Plutonium Pu239 Pu ²⁴⁰ (8)				I I II II II	III III III III III
95241 (9) 96241 (9) UF ₆ (10) WC (10) Special Ordnance	II II I	II II	I II II	II II II	II II
Materials developed at Los Alamos	III	III	III	III	III

(1) Atomic symbols with superscripts denote a particular isotope rather than a natural substance.

All information on production capacity and stocks available is in Class III. (2)

(3)This includes descriptions of actual manufacturing operations and laboratory work from which (the nature of these) operations could be clearly inferred.

(4) In the case of the D-T cross section, recommendation of Class I was not unanimous.

Small scale production methods are in Class II.

Data pertaining to applications of beryllium in a production pile are in Class II.

It should be made known that sufficient B^{10} is available for making counters. Any information revealing the existence of Xe^{135} or Pu^{240} is in Class II. (7)

(8)

Any new work on these substances which does not reveal the existence of (9) Pu²⁴⁰ is to go into Class I.

(10) Particular care is to be exercised to see that no disclosure is made of classified applications or methods of use of these substances.





IX. Classification of Topics

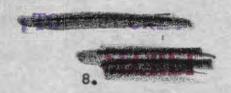
As the result of careful consideration the Committee prepared the following list of topics and their recommended classification. The Committee does not regard this as a complete list of topics and in general it intends to amend, review and supplement the list in the future. Until this is done, however, immediate declassification is recommended only for topics which have been included in Class I of the list.

In using this list care must be taken to see that the recommendations to declassify agree with the treatment of classified substances in Table I.

A. General

- 1. Physical instrumentation which may be of use in the laboratory practice of the country is to be put into Class I, but the motivation for developing the instruments and the applications for which they were used should be declassified only when the application itself is declassified. Examples:
 - (a) Counters
 - (b) Ionization chambers
 - (c) Energy-insensitive neutron detectors
 - (d) Mass spectrographs
 - (e) Electronic circuits
 - (f) Electric controls and circuits of all kinds
 - (g) Cyclotrons, Van de Graff and other ion accelerators
 - (h) Special sources of neutrons and gamma rays omitting reference to their application.
- 2. Methods of applied mathematics and computation if illustrated on declassified subjects.
- 3. Microchemical and microscopic techniques.
- 4. Metallurgical techniques.
- 5. All chemistry of non-classified substances not directly involved in production or utilization of active materials.
- 6. Methods of chemical analysis with illustrations on nonclassified substances, provided process details and specifications cannot be inferred.





- 7. Design and operating characteristics of small experimental piles in which enriched material or heavy water is used, provided the pile generates power at a level under 100 kW. The chemistry of decontamination is not included.
- 8. All nuclear properties of non-classified substances.
- 9. Basic studies of chemical effects of radiation.
- 10. General theory of centrifuge.

Class II

- 1. Experimental work on centrifuge method of isotope separation and detailed mechanical design.
- 2. Nuclear characteristics, including capture, fission, and scattering cross-sections for all energies of neutrons; number of neutrons produced per fission; spontaneous fission rates, etc.; for all isotopes of plutonium, uranium, protoactinium, and thorium.

Class III

- 1. Production plants, overall details, flow sheets, rates of production, operating procedures and policy.
- 2. Stocks and reserves of uranium and all other classified substances.
- 3. All specifically military matters.

B. Electromagnetic Process - (Y-12)

- 1. Experimental and theoretical work on general phenomena of discharges in magnetic fields.
- 2. Experimental and theoretical work on ion optics omitting reference to classified installations.
- 3. Experimental data on ionization cross section by electrons, ions, secondary emissions, etc.
- 4. Experimental data on high voltage breakdown in vacuum, insulator characteristics in vacuum, etc.
- 5. Electrical controls and circuits of all kinds omitting reference to classified installations.





Class II

- 1. Special precautions taken during the process with respect to critical mass.
- 2. Princeton work on alternate electromagnetic methods of isotope separation.

Class III.

- 1. Overall enrichment achieved by the process; enrichment achieved per stage (alpha or beta); isotopic constitution of uranium at any stage in the process.
- 2. The total production-rate of the process, of either of the two stages, or of a single tank; and the true value of the enriched and depleted ion currents in the tank.
- 3. The rate of feed, origin, and enrichment.
- 4. Overall flow-sheets, diagrams, or reports, discussing or showing in detail, a complete essential part of the process such as the complete alpha chemistry or beta chemistry.

C. <u>Diffusion Processes</u>. (K-25, K-27 and S-50)

- 1. Basic theoretical work on cascade design and kinetic chemistry, although specific applications to the project cascade and to conditioning respectively should not be declassified.
- 2. Techniques of particle size and surface area measurements without reference to barrier construction.
- 3. Fluorocarbon chemistry and mamufacture.
- 4. Fluorine chemistry, including industrial preparation.
- 5. General theory of thermal diffusion in gases without application to classified installations.





10.

Class II

- 1. Thermal diffusion method as applied to uranium hexafluoride.
- 2. Special precautions taken during the process with respect to critical mass.

Class III

- 1. Rate of feed, waste, production or circulation in any stage.
- 2. Separation factor of any stage. (psi)
- 3. Pressure level in any stage.
- 4. Capacity of largest filter, pump, blower, or motor.
- 5. Sizes of valves, piping, and flow meters.
- 6. Number of instruments, pumps, etc.
- 7. Total number of stages or total area of barrier in entire plant.
- 8. Power expended in operation of plant.
- 9. The design of pumps, blowers, diffusers (converters) and seals should remain classified until the feasibility can be determined of releasing useful design features without disclosing critical information concerning the size of the equipment from which the size and capacity of the plant could be inferred.
- 10. The details of the control of the cascade should be in Class III, although specific instruments should be declassified. (See General)
- 11. The barrier; methods of manufacturing it; and research and development connected with its improvement.
- 12. Methods of stabilizing the barrier to prevent plugging and corrosion.
- 13. Methods of barrier testing.





Class I

- 1. Elementary theory of neutron diffusion and general elementary pile theory omitting reference to classified installations.
- 2. A list should be published of the non-classified isotopes and fission products which can be produced in a pile. Information should be given as to which substances are currently available. Caution must be exercised not to reveal production capacities by disclosing critical data as to the amounts of isotopes which are available or the rate at which they can be made.
- 3. Details of fission product chemistry, omitting reference to separation processes.
- 4. Ceramics without reference to uranium or plutonium production.
- 5. Physical and chemical effects of high energy levels of radiation on matter, except for special construction materials and chemicals used in production processes. The values of radiation levels in production piles should not be released.

- 1. Extraction and decontamination chemistry, without reference to larger scale problems.
- 2. Alternate processes for plutonium extraction.
- 3. Pile theory for production units, omitting reference to actual installations.
- 4. Experimental and theoretical work on converter, breeder, and power piles.
- 5. Design and efficiency of neutron reflectors for experimental reactors.
- 6. Theory and design of larger experimental piles of up to 10,000 kW.





Class III

- 1. Canning operation.
- 2. Use of fission products as chemical warfare poisons.
- 3. Specific military and naval uses of atomic power.
- 4. Use of atomic energy for jet propulsion.

E. Military Utilization Project (Y)

Class I

- 1. Physical instrumentation as under A.
- 2. Methods of applied mathematics and computation if illustrated on declassified subjects. Examples:
 - (a) Shock hydrodynamics.
 - (b) Integration of partial differential equations.
 - (c) General diffusion theory.
 - (d) Theoretical methods for determining equations of state.
 - (e) Chemical kinetics including application to ordinary explosives.
 - (f) Theoretical methods for calculating opacities.
- 3. General theory of blast.

Class II

- 1. Critical masses, without reference to weapon design.
- 2. The theory of implosion, without reference to military application.
- 5. General theories of efficiencies, without reference to specific weapons.
- 4. Studies of detonation, shock, and hydrodynamic behavior.

Class III

- 1. Detailed design of weapons.
- 2. Fuses, firing systems, detonators.
- 3. The principle, method of construction, and operation of modulated initiators.



- 4. Rate of production, reserves, and storage of bombs.
- 5. Mechanism of delivery of bombs from plane.
- 6. Ballistics.
- 7. Destructive effects of actual bombs.
- 8. Use of weapon under water.
- 9. Techniques of implosion, except for specific instruments which do not divulge the method of application.
- 10. Explosive lenses.
- 11. Efficiencies.
- 12. The "super" as a weapon.

F. Medical Information

Class I

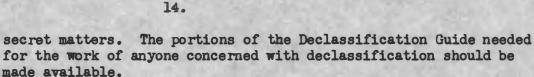
- 1. All reports on medical research and all health studies omitting such items as might disclose information beyond that included in Class I, Section IX, A to E inclusive.
- 2. Medical information as to the effects of the bomb on Hiroshima and Nagasaki. This is recommended in order that exaggerated statements as to lasting radiation effects may be discredited on the basis of the true facts.

I. Mechanism for Declassification

The Committee gave consideration, not only to the rules which should be followed in declassification, but also to the establishment of an appropriate mechanism for carrying out the process of declassification.

A. Declassification Guide

It is recommended that Table I on classified substances and Section IX on the classification of topics serve as a Declassification Guide for use in the process of declassification. It is recommended, however, that the whole of the Declassification Guide should not be generally distributed since it gives an overall picture of the whole project and makes mention in certain instances of extremely



It was the opinion of the Committee that this guide should be amended, reviewed and supplemented as proves necessary; at the same time it was hoped that in its present form it would be complete enough to be of immediate use. It should again be emphasized that regardless of the recommendations for declassification of topics contained in Section IX, the principles set forth in Table I must be followed.

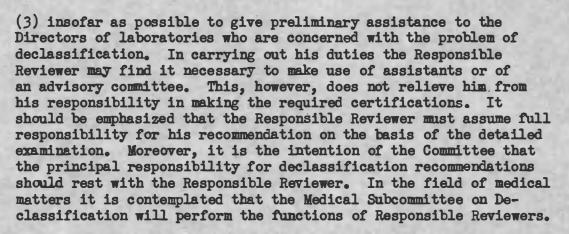
B. Declassification Organization

THE RESERVE AND ADDRESS OF THE PERSON OF THE

The Committee recommends that the process of declassification should be carried out by an organization consisting of (1) the Directors of laboratories or other organizations in which documents proposed for declassification originate, (2) the Responsible Reviewers who will be appointed to consider documents arising in different fields, and (3) the District Declassification and Transmission Office which will be set up by the District Engineer.

It shall be the duty of the Director of the laboratory or other unit (1) to assure himself that the document in question contains no material that is not declassifiable in accordance with the Declassification Guide, and (2) to assure himself that the document contains no statement which might adversely affect the patent position of the government, obtaining a statement to this effect from a representative of the Office of the Patent Advisor (Captain Lavender) in case of uncertainty. Having certified that the document does fulfill these requirements he should forward it for further consideration to the Responsible Reviewer for the field in question, or in case of doubt as to the proper channel, to the District Declassification and Transmission Office which will forward it to the appropriate Responsible Reviewer.

Responsible Reviewers, designated for the different major fields of work, shall be appointed by the District Engineer with the approval of the Commanding General, on the basis of suggestions from members of the Committee on Declassification, from the Directors of laboratories, or from others concerned. It is understood that the concurrence of the Director of any major laboratory will be obtained in the appointment of a Responsible Reviewer to be mainly concerned with the work of that laboratory. It shall be the duty of the Responsible Reviewer (1) to assure himself and certify on the basis of detailed examination that the document proposed for declassification conforms to the Declassification Guide, (2) to assure himself and certify that it does not adversely affect the government's patent position, obtaining a statement to this effect from a representative of the Office of the Patent Advisor in cases of uncertainty, and



A District Declassification and Transmission Office shall be established by the District Engineer. It shall be the duty of this office (1) to declassify documents on the basis of the certifications from the Directors of laboratories and from the Responsible Reviewers, (2) to ascertain by suitable checks whether the mechanism of declassification is proceeding in accordance with the rules laid down in the Declassification Guide, (3) to make sure that the mechanism of declassification functions promptly and efficiently, and (4) on the basis of an overall view to make sure that appropriate material in all fields is declassified as expeditiously and completely as possible in order to secure the maximum benefits to be derived from its wider use.

Although it lies outside the specific directive of the Committee, it is recommended that the three agencies of the Declassification Organization -- the Laboratory Directors, Responsible Reviewers, and District Declassification and Transmission Office -- give attention to the problem of securing proper recognition, by means of authorship or otherwise, for the different persons who have contributed to a given field of work.

In connection with the release of declassified information it is recommended that all possible use should be made of the normal channels of publication of scientific and technical articles. This has the advantage that papers on purely scientific matters can be made available without necessarily revealing the specific purposes of the work or its relation to any particular part of the project. Approval should also be given to the preparation of encyclopedic handbooks covering work on the various major phases of the project. Steps must then be taken, however, to insure proper coordination of the material included in such handbooks with that which may be published in separate articles. In addition, attention is called to the necessity of preparing chapters of a proposed handbook, for which outside publication is contemplated, in such a form as to agree with the Declassification Guide.





XI. Mechanism for Transmission of Classified Information

The problem of transmission of classified information was considered in two parts.

- A. Transmission of Classified Information between Units of the Manhattan District
 - 1. The majority of the Committee agreed that the Directors of certain major laboratories should be authorized to make known to each other the availability of information in Section IX falling into either Class I or Class II and to request and transmit such information between themselves. They should be authorized to take such action without further approval provided the District Declassification and Transmission Office is informed simultaneously by duplicate copies of correspondence. It shall be the responsibility of the Directors of both laboratories concerned to make sure that any information requested or transmitted does in fact fall into either Class I or Class II as set forth in Section IX. It shall be the responsibility of the laboratory Director receiving the information to make sure that appropriate use is made of it within his organization. It is recommended that the laboratories listed below should at present be allowed to participate in this direct interchange of information; it is contemplated that changes in the list will be necessary from time to time.
 - (a) Ames Laboratory, Iowa State College
 - (b) Argonne Laboratory
 - (c) Clinton Laboratories
 - (d) Los Alamos Laboratory
 - (e) Metallurgical Laboratory, University of Chicago
 - (f) S.A.M. Laboratories
 - (g) Radiation Laboratory, University of California
 - 2. Transmission of classified information between units of the Manhattan District, unless both are listed above, should be handled in accordance with present District policy.
- B. Transmission of Classified Information for Use Outside the Manhattan District

In the case of information for use outside the District the Committee recommends:





- 1. The transmission of classified information outside the project must be in the interest of the national welfare.
- 2. The recipient must be cleared, responsible, and bound to secrecy.
- 3. Inquiries directed to Directors of laboratories or other organizations should be forwarded for action to the District Engineer, together with the recommendation of the Director receiving the inquiry.
- 4. Inquiries originally addressed to the District Engineer may be acted upon by him without further consultation or may be referred to an appropriate laboratory Director for recommendation prior to action.

XII. Conclusion

The foregoing report presents the recommendations which the Committee has been able to formulate at the present time. It is hoped that they may serve as a basis for action which will lead to the release of appropriate information at an early date.

It is anticipated that it will be possible for the Committee in the near future to consult with the large industrial companies which have been associated with the work of the District. It is probable that further recommendations will result from such consultations.

R. F. Bacher	A. H. Compton
E. O. Lawrence	J. R. Oppenheimer
F. H. Spedding	H. C. Urey
	Richard C. Tolman Chairman of the Committe

on Declassification

J. R. Ruhoff Secretary to the Committee

16 February 1946

Major General L. R. Groves Post Office Box 2610 Washington, D. C.

My dear General Groves:

There is inclosed a carbon copy of a memorandum addressed to you dated 20 January 1946, subject: "Second Report of Committee on Declassification". This report which is signed by Colonel Ruhoff and myself as Secretary and Chairman may be properly regarded as representing the opinion of the Committee. A preliminary draft of the memorandum received unqualified approval from six members of the Committee; the other two members each made one suggestion and attention has been called to these in footnotes.

The original copy of the memorandum is being sent around to the members of the Committee for signature. I shall forward it to you as soon as it has been signed.

Very truly yours,

Richard P. Toluran

RICHARD C. TOLMAN

Chairman. Committee on Declassification

l Incl. Cpy Memo to Gen. Groves dtd 20 Jan 46.

cc: Dr. R. F. Bacher

Dr. A. H. Compton

Dr. E. O. Lawrence

Dr. J. R. Oppenheimer

Dr. F. H. Spedding

Dr. H. C. Urey

CLASSIFICATION CANCELLED

DATE AUG 3 0 1972

For The U.S. Atomic Energy Commission

Bly acksu Division of Classification



20 January 1946

MEMORANDUM TO MAJOR GENERAL L. R. GROVES:

SUBJECT: Second Report of Committee on Declassification.

I. Meetings.

The Committee on Declassification held meetings in Wilmington, Delaware on 27 December, and in New York City on 28 and 29 December. The Committee conferred with representatives of the following organizations:

du Pont Company
Harshaw Chemical Company
Hooker Electrochemical Company
Stone & Webster Engineering Corporation
General Electric Company
Westinghouse Electric Corporation
Tennessee Eastman Corporation
Kellex Corporation
Allis-Chalmers Manufacturing Company
Chrysler Corporation
Crane Company
Union Carbide & Carbon Corporation

II. Attendance.

Dr. R. C. Tolman, Chairman, Dr. F. H. Spedding, Dr. H. C. Urey, and Lt. Col. J. R. Ruhoff attended the meetings of the Committee. Dr. R. F. Bacher, Dr. A. H. Compton, Dr. E. O. Lawrence and Dr. J. R. Oppenheimer were unable to attend.

III. Recommendations.

The Committee wishes to make the following recommendations at this time as a supplement to those in our memorandum of 17 November. If approved they could be implemented by action of the District Declassification Office.

- 1. Item 1 of Section IX C, Class I (Page 9 of the memorandum of 17 November) should be changed from: "Basic theoretical work on cascade design and kinetic chemistry, although specific applications to the project cascade and to conditioning respectively should not be declassified." to:
 - "l a. Basic theoretical work on reflux separation processes, without reference to diffusion cascades. (See footnote Page 2)



- l b. Theoretical work on chemical kinetics such as was developed in connection with corrosion problems, but without reference to the conditioning of barriers."
- 2. It is believed that in a few carefully selected cases certain specific fields and certain specific contracts can be declassified as entities. Recommendations for the declassification of a field or of a contract should originate with the Director of the organization concerned, and should be given special consideration both by a Responsible Reviewer and by the Declassification Office before such declassification of a whole field or contract is carried out. In notifying the contractor concerned the limitations as to just what has been declassified must be carefully spelled out and, in particular, clear statements must be made as to the necessity for concealing the connection and interest of the Manhattan District in the work in those cases where that policy is found necessary.
- 3. Recommendations for the declassification of routine business correspondence and other non-technical documents should originate with the Director of the organization concerned, and should be acted upon by a Commissioned Officer such as the Area Engineer, Contracting Officer, or an officer from the Declassification Office, with the assistance of technically trained enlisted men or technically trained civilians, omitting approval by a Responsible Reviewer. It is believed that this procedure will avoid placing an unnecessary and unbearable burden on Responsible Reviewers whose actual function is to consider the declassification of scientific and technical material.
- 4. The Committee centemplates that the declassification organization will proceed promptly with the declassification of material which is being prepared for publication or which is being declassified for application in industrial operations. It is possible, however, that the declassification organization will find from time to time that there are more requests for declassification than can be handled expeditiously. Under such circumstances the declassification organization must give first priority to documents which are being prepared for

This wording for item 1 of Section IX C, Class I, has the concurrence of all of the members of the Committee except one who has suggested that the wording of this topic should be studied further. This is being done.





publication or which contain information which is to be put to use promptly in industry. The declassification of old technical reports, drawings, notebooks, and the like, which are in the files must not be allowed to delay declassification of material which is to be generally released or made of industrial use.

- 5. The sections of the District Security Manual dealing with the classification of new documents and with the procedures for declassification should be revised from time to time as is found necessary so that their provisions are consistent with current District declassification policy. Recommendations to this end should be made by the Declassification Office to the District Engineer; contractors should be kept informed as to what the current District rules for classification and declassification are.
- 6. Care must be taken to determine whether the association or connection of the Manhattan District with a given document or field can properly be revealed. Consideration should be given to this matter in each instance in which declassification is contemplated. If the Director of the organization originating the request for declassification and the Responsible Reviewer agree on a given recommendation in any instance, the Declassification Office should concur, while if the Director of the organization and the Responsible Reviewer disagree, the Declassification Office should not permit association or connection of the information with the Manhattan District to be revealed.
- 7. The District Declassification Office should take an active and positive position in requiring organization Directors to submit material for declassification, if it is properly declassifiable and is of value and interest to science and industry.
- 8. Great care should be taken to see that the Manhattan District declassification policy is uniformly applied throughout the entire Project.
- 9. Declassification must be carried out in a consistent manner; e.g., secrecy orders in the patent office should be lifted when the subject matter is declassified by the Manhattan District. It is presumed that this will require collaboration of the District Declassification Office with the Office of the Patent Advisor.





10. There is some question as to the best treatment of information on the details of manufacturing processes. It has been suggested by some of the companies consulted that this might be handled by retaining classification and making the information available only to a few selected companies other than those that already have it. This would presumably permit the manufacture of the items in question and result in their being made available to the country without general disclosure of the methods of manufacture. This suggestion is transmitted to you by us without recommendation.²

IV. Comments.

The Committee wishes to make the following comments at this time although in many instances they fall outside the specific directive of the Committee.

- 1. Once information has been declassified it should be made accessible to everyone either through publication or by deposition in a central library—for instance in Washington or in Oak Ridge.
- 2. It is essential that a definite publication policy should be established within the District and that all organizations should be required to conform to it. This is particularly important in connection with the timing of publications.
- 3. There is considerable concern among industrial organizations as to how the government will handle the patents over which it has acquired control as a result of the work of the Manhattan District. A statement of the policy which the Government will follow ought to be made as soon as conditions permit.
- 4. One industrial organization expressed doubt as to what course they should follow when they receive orders from foreign countries for equipment which they believe can be used for work similar to that undertaken by the Manhattan District. They asked that the matter should be studied further and an appropriate mechanism established, if necessary, for handling instances of this sort. It was pointed out by the Chairman of the Committee that the company should consult with their local Area Engineer or the District Engineer on matters of this sort.

2The last sentence of paragraph 10 was added as a result of the suggestion of one of the members of the Committee.



V. Conclusion:

The Committee is pleased to learn that you have already initiated the organization of the District Declassification Office proposed in our previous memorandum. Concurrently with the preparation of the present memorandum the Committee is giving consideration to the drafting of a communication to the members of the Senate Atomic Energy Committee expressing our ideas as to an appropriate declassification policy. It is hoped that this may be of assistance in supporting the constructive and forward looking declassification policy which you are undertaking.

F. H. SPEDDING	A. H. COMPTON
R. F. BACHER	H. C. UREY
E. O. LAWRENCE	J. R. OPPENREIMER
	Richard C. Tolersu RICHARD C. TOLMAN Chairman,

Committee on Declassification

Secretary to the Committee on Declassification



46

THE NATIONS ATOMIC ENERGY COMMISSION

EMPIRE STATE BUILDING
NEW YORK 1, N.Y.

MURRAY HILL 3-6800

21 June 1946

SUBJECT: Third Report of Committee on Declassification.

MEMORANDUM to Major General L. R. Groves.

I. Action

The Committee on Declassification has received specific written comments from the industrial organizations with which the Committee consulted on 27 and 28 December. The Committee has given careful consideration and study to these, in order to determine whether the topics suggested are appropriate for use in declassification.

II. Recommendations

The Chairman acting for the Committee, wishes to transmit to you the following recommendations of the Committee as a supplement to those in the memoranda of 17 November and 20 January:

- A. The topics in the first list (attached) should be added to those included in Section IX of the 17 November memorandum. A suitable classification for each topic has been recommended.
- B. No further Committee action should be taken on the topics in the second list (attached).

CLASSIFICATION CANCELLED

DATE AUG 3 0 1972

For The U. S. Atomic Energy Commission

- white

Division of Classification

Incls.

Richard C. Tolusan

Richard C. Tolman
Chairman of the Committee
on Declassification



Topics for addition to those included in Section IX of the 17 November memorandum.

A. General

Class I

1. Physical instrumentation which may have industrial application, provided the instruments are not solely applicable to the work of the Manhattan District. The motivation for developing the instruments and the application for which they were used should be disclosed only when the application itself is declassified.

Examples are:

(a) Counter (radiation) and timer.

(b) Radiation detector and monitor design and operation.

(c) High voltage electronic regulator.

- (d) All special instruments except those of great importance to the diffusion plant; instruments recommended for declassification are:
 - i. Thermal flow meter.
 - ii. New types of diaphragm pressure gage.
 - iii. Acoustic (gas) analyzer.
 - iv. Various HF analyzers.
- (e) Thermal conductivity (low pressure gas analyzer).
- (f) Differential pressure transmitter and differential pressure receiver.
- (g) Magnetic valve operator (for Kellex).
- (h) Magnetic coupling (for Fercleve).
- (i) Continuous dew-point recorder.
- (j) Groove depth indicators.
- (k) Temperature and pressure instruments for making measurements in corrosive atmosphere.
- 2. Commercial mass spectrometers which make use of the improvements made in such instruments in building the line recorders and assay spectrometers but not spectrometers as were built for the purpose for which K-25 uses them should be released for sale for other purposes without in any way allowing manufacturers to connect their products with the operation of K-25.



of the 17 November memorandum. (Contd.)

- 3. Equipment for the continuous analysis of the plant gas stream (line recorders).
- 4. Space recorder.
- 5. Leak detectors as built by General Electric and Westinghouse should be released for sale for other purposes without in any way allowing manufacturers to connect their products with the operation of K-25.
- 6. The technique of vacuum testing by means of a leak detector.
- 7. Automatic thickness control.
- 8. Analytical methods for determining fluorine and the fluorocarbons.

Class II

1. Technique for handling fissionable materials.

Class III

1. Operational, engineering and construction data referring specifically to the methods which have been and are being used.

B. Electromagnetic Process - (Y-12)

- Studies of high voltage technique including studies of cable failure, insulator failure, drain phenomena, and sparking transients when not revealing unit design features.
- 2. Fundamental reports on electron emission from metalceramic junction, thermo-chemical transfer of metals, electron oscillations in electric and magnetic fields, provided no significant design specifications are included.
- 3. Corrosion tests on metals used in the presence of nonsecret chemicals.
- 4. Abrasive cleaners and similar equipment not critical to plant operation.



Class III

- *1. Charge or other critical material studies.
- *2. Fundamental reports directly and significantly influencing the design of the critical plant equipment.
- *3. General design of electrical features of equipment employed in the plant and not generally applicable to industry.
- 4. Detailed design data such as electrical and mechanical specifications of the equipment and electron drain systems.
- *5. Design of ion sources.
- *6. Design of insulators and insulator shields.
- *7. Vacuum heater design.
- 8. All matters descriptive of the actual physical equipment uniquely or critically related to the electromagnetic process, or revealing equipment or production statistics.
- 9. Production statistics, revealing rate and quantity of production.
- 10. Reports relating to the production of the plant.
- 11. Equipment statistics, revealing number of units in plant.
- 12. Material and equipment lists.
- 13. Drawings of process buildings, the chemical buildings including cooling towers.
- *14. High-voltage cubicles and heater control.
 - 15. Plant layouts, photographs and blueprints of M, E, Liner, Tank, and Magnet assemblies and Shim design.
- * Topics marked with asterisk are topics on which the majority opinion of the Committee was followed when only one vote was cast for an adjacent Class (e.g. between Class I and Class II or Class II and Class III but not between Class I and Class III).



- 16. M and B units.
- 17. Manufacturers' prints of:
 - (a) Reactors.
 - (b) Cubicles.
 - (c) M and E units.
 - (d) Shims.
 - (e) Special chemical equipment.
- 18. Specifications relating to the high voltage cubicles, M and E units, and special chemical equipment.
- 19. Instructions relating to the high voltage cubicles, the M and E units, and special chemical equipment.
- 20. Division Progress Reports, reports by plant test groups and minutes of meetings concerning plant technical problems.
- 21. Operational information, such as process time cycles, process efficiency and chemical losses.
- 22. Cost and economic studies, particularly for the plant as a whole and the critical process equipment employed.
- C. Diffusion Processes. (K-25, K-27 and S-50)

- 1. Fluorocarbons.
 - (a) Physical and chemical properties.
 - (b) Analytical methods.
 - (c) Processes for manufacturing fluorocarbons.
- 2. Laboratory and pilot plant work on chlorofluorocarbons and fluorocarbons.
- 3. Design and construction of a plant to produce Lylene hexafluoride and its mono and dichlorides.
- 4. The technology of fluorine.
 - (a) Manufacturing processes.
 - (b) Materials of construction for fluorine.
 - (c) Methods of handling fluorine.
 - (d) Vacuum pumps for fluorine.
 - (e) Compressors for fluorine.
 - (f) Disposal system for fluorine.





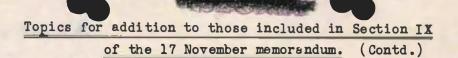
Topics is addition to those included in Section IX

of the 17 November memorandum. (Contd.)

- 5. Design and construction of a fluorine cell plant and fluorine packaging, storage, and compression plant.
- 6. Heat transfer characteristics of finned copper tubing.
- 7. Cold Traps.
 - (a) Mechanical description of cold traps.
 - (b) Performance data on cold traps.
 - (c) Scraped cold traps.

Class III

- 1. Description of gaseous diffusion plant.
 - (a) Process design.
 - (b) Engineering description.
 - (c) History of construction.
 - (d) Operating instructions.
 - (e) Production records.
- Any information from which plant productivity could be derived, such as the sizes of equipment in the base stages.
- 3. Diffusion barrier.
 - (a) Types of barrier developed.
 - (b) Properties of barrier.
 - (c) Methods of manufacturing barrier.
 - (d) Methods of producing nickel powder.
 - (e) Barrier specifications for diffusion plant.
- 4. Methods of Testing Diffusion Barriers with inert gases.
 - (a) Separation factor.
 - (b) Porosity.
 - (c) Surface properties.
- 5. Separation performance of diffusion barriers with UF6.
 - (a) Experimental methods.
 - (b) Barrier separation factors with UF6.
- 6. Fluorocarbon requirements of diffusion plant.



D. Plutonium Project (X-10 and W)

Class I

1. Physical characteristics of graphite.

Class II

- *1. Effects of neutron radiation on graphite.
- *2. Detailed pile theory, computational methods and exponential pile methods.
- *3. Exponential piles.
- *4. Results of exponential experiments.
- *5. Properties of moderators, such as migration and diffusion lengths.
- *6. Danger coefficients of different elements and their damaging values.

Class III

- 1. Quantities and dates of shipment of graphite for various Manhattan District projects.
- *2. Material relating to the separation of heavy water; i.e., the design of the towers and associated equipment. (Trail)
- * Topics marked with asterisk are topics on which the majority opinion of the Committee was followed when only one vote was cast for an adjacent Class (e.g. between Class I and Class II or Class II and Class III but not between Class I and Class III).

DP. 32 FR89 8 E 2474

Topics for which no further Committee action

is recommended.

A. General

- 1. Advance designs referring to all the processes used on the Manhattan District.
- B. Electromagnetic Process (Y-12)
 - 1. All instructions from manufacturers pertaining to the operation of their equipment, except for the high voltage cubicles, H and E units, and special chemical equipment.
 - 2. All manufacturers' prints except those of:
 - (a) Reactors.
 - (b) Cubicles.
 - (c) M and E units.
 - (d) Shims.
 - (e) Special chemical equipment.
 - 3. All specifications except those relating to the cubicles, M and E units and special chemical equipment.
 - 4. Maps of the Y-12 Area.
 - 5. All drawings of miscellaneous buildings (at Y-12) such as machine shops, cafeterias and change houses.
 - 6. Significant information which might lead to considerably improved electromagnetic separation or operable units other than those now employed.
- C. Diffusion Processes (K-25, K-27 and S-50)
 - 1. Narrative history of the project.

on the set.

Dear Dr. Tolman:

Thank you for the Third Report of Committee on Declassification

which you sent to me on 21 June 1946. This will require revision of

our guides and I believe it will be advisable at the same time to

incorporate changes which our experiences to date indicate are needed.

This will be these through the procedure of the Senior Responsible

Reviewers acting somewhat like a sub-committee of the Declassification

Committee, which we discussed on Nune 24th and about which I wrote

you on June 287.

Sincerely yours,

LRG

Of of

THIS DOCUMENT CONTISTS OF 18 PAGE(S)
NUMBER 1 OF 12 COPIES, SERIES A

of its current probibited by law.

of the Espion of the Espion of the Espion of the revels unauthorized person

TABLE OF CONTENTS

I.		ivities of Chairman and Secretary of the Committee on lassification Since Meetings of 12 and 13 November.	Page	1		
II.	Copy of Teletype Inviting Industrial Organizations to Meetings in Wilmington and New York.					
III.	Nar	rative Report of Meetings in Wilmington and New York.	Page	3		
	A.	Attendance	Page	3		
	B.	List of Questions Discussed with Each Contractor	Page	3		
	c.	Wilmington Meeting with Contractors on 27 December	Page	4		
		1. du Pont Company	Page	4		
			Page	6		
			Page	7		
			Page	7		
			Page	ġ		
	D.	New York City Meeting with Contractors on 28 December.	Page	g		
			Page	8		
			Page	9		
			Page	10		
		The state of the s	Page	11		
			Page	12		
			Page	13		
			Page	14		
			Page	14		
			Page			
		10. General Matters	Page	15		
	E.	New York City Meeting with General Groves on 29 December.	Page	16		
	F.	New York City Discussion by the Committee.	Page	17		

ay 8A-destroyed 10A- 1, 11A- 1,

Chase

Jany " Zidler to Johnson & Hor 64 with Cry 9 A returned 20/16/62.

Im Dr. W. C. Johnson.

Destroyed 19/4/64

1531



CLASSIFICATION CANCELLED OR CHAPIGED TO BY AUTHORITY OF CARACOG DO E 3/72/17 Donn K. Hartsock

Activities of Chairman and Secretary of Committee on Declassification Since Meetings of 12 and 13 November.

Following the meetings of the Committee on Declassification in Pasadena on 12 and 13 November, the Chairman of the Committee and the Secretary prepared a draft of a memorandum to General Groves, a copy of which was transmitted on 18 November to each member of the Committee for comments and suggestions. Early in December, after incorporation of all suggestions made by the Committee members which did not conflict with previous action by the full Committee, the memorandum was prepared in final form and sent to each member of the Committee for signature after which it was forwarded to General Groves.

In accordance with the thoughts expressed at the Pasadena meeting, the Chairman of the Committee and the Secretary undertook to arrange for meetings of the Committee with representatives of industrial organizations during the latter part of December. After preliminary discussion by telephone with each industrial organization, telegraphic invitations were sent on 12 December, signed by the Chairman, and meetings were held in Wilmington on 27 December and in New York City on 28 and 29 December.

Copy of Teletype Inviting Industrial Organizations to Meetings in Wilmington and New York.

The following teletype was sent to the addressees listed below on 12 December:

- 1. Mr. Roger Williams, du Pont Company
- 2. Mr. W. J. Harshaw, Harshaw Chemical Company
- 3. Mr. E. R. Bartlett, Hooker Electrochemical Company 4. Mr. R. T. Branch, Stone & Webster Engineering Corporation
- 5. Mr. H. A. Winne, General Electric Company
- 6. Mr. G. H. Bucher, Westinghouse Electric Corporation
- 7. Mr. J. C. White, Tennessee Eastman Corporation
- 8. Keller Corporation, Attention Mr. P. C. Keith
- 9. Mr. T. K. Keller, Chrysler Corporation
- 10. Mr. Walter Geist, Allis-Chalmers Manufacturing Company
- 11. Mr. V. P. Rumley, Crane Company
- 12. Mr. J. A. Rafferty, Union Carbide & Carbon Corporation
- 13. Kellex Corporation, Attention Mr. A. L. Baker (sent 21 December)

"COMMITTEE CONSISTING OF FOLIOWING PERSONS HAS BEEN APPOINTED BY MAJOR GENERAL GROVES TO MAKE RECOMMENDATIONS TO HIM ON DECLASSIFICATION OF INFORMATION OBTAINED ON WORK OF THE MANHATTAN PROJECT

R C TOLMAN CHAIRMAN, R F BACHER, A H COMPTON E O LAWRENCE, J R OPPENHEIMER, F H SPEDDING, H C UREY, J R BUHOFF SECT TO THE COMMITTEE





GENERAL GROVES HAS SET FORTH TO DR TOLMAN THE OBJECTIVE OF THE COM-MITTEE AS FOLLOWS -

'THE OBJECTIVE OF YOUR COMMITTEE IS IN CONSIDERATION OF BOTH THE NATIONAL SECURITY AND THE NATIONAL WELFARE TO RECOMMEND TO ME A PROGRAM ON THE DECLASSIFICATION AND RELEASE OF INFORMATION. YOUR REPORT SHOULD INCLUDE RECOMMENDATIONS ON —

A_THE EXTENT TO WHICH INFORMATION OBTAINED ON THE WORK OF THE MAN-HATTAN PROJECT SHOULD BE DECLASSIFIED. B_THE DETAILED RULES TO BE FOLLOWED IN SUCH DECLASSIFICATION.

THE COMMITTEE HAS HAD ONE MEETING AND HAS JUST COMPLETED MAKING SOME RECOMMENDATIONS TO GENERAL GROVES. IT IS ANXIOUS TO OBTAIN AS SOON AS POSSIBLE FROM REPRESENTATIVES OF INDUSTRIAL ORGANIZATIONS COMMENTS SUGGESTIONS AND RECOMMENDATIONS WHICH BEAR ON THE COMMITTEES DIRECTIVE. IT IS FELT HOWEVER THAT IT WOULD NOT BE PROPER TO DISCUSS THE RECOMMENDATIONS WHICH THE COMMITTEE HAS MADE TO THE GENERAL UNTIL HE HAS HAD AN OPPORTUNITY TO ACT ON THEM. HENCE AT THE COMING MEETING THE COMMITTEE WILL NECESSARILY BE CONFINED TO RECEIVING SUGGESTIONS FROM REFRESENTATIVES OF INDUSTRIAL ORGANIZATIONS.

EXAMPLES OF MATTERS ON WHICH YOU MAY WISH TO ADVISE THE COMMITTEE FOLIOW-

- 1. DO YOU HAVE ANY SUGGESTIONS OR RECOMMENDATIONS ON THE DETAILS OR MECHANISM FOR THE PROCEDURE TO BE FOLLOWED IN EFFECTING DECLASSIFICATION.
- 2. WHAT PRECAUTIONS SHOULD BE OBSERVED TO INSURE FAIRNESS TO ALL CON-CERNED.
- 3. WOULD YOU PREPARE LISTS OF SUBJECTS WHICH IN CONSIDERATION OF THE GENERALS DIRECTIVE ARE -

A-DEFINITELY HECOMMENDED FOR DECLASSIFICATION.

B-SHOULD DEFINITELY REMAIN CLASSIFIED.

C-BORDERLINE CASES OR CASES WHERE RECOMMENDATIONS ARE UNCERTAIN.

- 4. WHAT PRECAUTIONS SHOULD BE TAKEN TO MAKE SURE THAT ONLY THAT INFORMATION WHICH IS PROPERLY DECLASSIFIABLE IS DECLASSIFIED.
- 5. WHAT PARTICULAR PROBLEMS DO YOU ANTICIPATE MAY ARISE IN CONNECTION WITH DECLASSIFICATION AND HOW MIGHT THEY BE HANDLED.

(The next paragraph of the teletype is not quoted verbatim. It was different for each organization and dealt only with the times and places of the meetings.)

WIT WOULD BE MOST HELPFUL IF YOU WOULD ARRANGE TO PROVIDE THE COMMITTEE WITH WRITTEN COMMENTS IN ADVANCE OF THE COMMITTEE MEETING. EIGHT COPIES OF THESE SHOULD BE SENT TO LT COL J R RUHOFF CARE ARRA ENGINEER U S ENGINEER OFFICE 3600 NORTH 2ND ST ST LOUIS 7 MISSOURI AND SHOULD REACH HIM BY DECEMBER 21 IN ORDER TO ALLOW TIME FOR NECESSARY DISTRIBUTION. WILL YOU KINDLY INFORM COL RUHOFF U S ENGINEER OFFICE MANHATTAN DISTRICT

P O BOX E OAK RIDGE TENNESSEE OR TELEPHONE KNOXVILLE L D 60 EXTENSION 5-6110 AT YOUR EARLIEST CONVENIENCE OF THE NAMES OF PEOPLE WHO WILL REPRESENT YOUR ORGANIZATION. I BELIEVE THAT COL RUBOFF WILL BE IN POSITION TO FURNISH YOU WITH ANY ADDITIONAL INFORMATION YOU MAY NEED.

R C TOIMAN
CHAIRMAN OF COMMITTEE ON DECLASSIFICATION.

III. Narrative Report of Meetings in Wilmington and New York.

A. Attendance.

Dr. R. C. Tolman, Chairman, Dr. F. H. Spedding, Dr. H. C. Urey, and Lt. Col. J. R. Euhoff attended the meetings of the Committee.

Dr. R. F. Bacher, Dr. A. H. Compton, Dr. E. O. Lawrence, and Dr. J. R. Oppenheimer were unable to attend.

B. List of Questions Discussed with Each Contractor.

The Chairman of the Committee discussed the following questions with each contractor:

- 1. What does declassification consist in?
 - a. Cancelling "Secret" or "Confidential" stamp on a document.
 - b. Stating that a particular field is declassified.
 - c. Stating that a particular contract is declassified.

The Chairman of the Committee stated that by careful selection there will probably be some cases where a field or contract can be declassified as a whole; however, that the usual case must be handled document by document to make sure that inappropriate material is not included. The Declassification Office will be glad to receive suggestions as to items which could be handled by methods b and c.

- 2. What sorts of documents need declassification?
 - a. Business correspondence.

Is your company interested in declassification of any documents currently in your files? The Army may want to

get as many documents declassified as possible to avoid inventory and bookkeeping difficulties. What would your reaction be to such a proposal? It was suggested that declassification of routine or business correspondence could be carried out by some officer—for example, the Area Engineer or Contracting Officer—with assistance of some technically trained enlisted men if necessary.

- b. Existing reports on scientific work.
- c. Existing reports on engineering and technological work.
- 3. What treatment should be accorded new documents, papers, etc?

They should be classified in accordance with existing District rules; see Security Manual dated 25 November 1945. It is contemplated that the Committee will recommend revision of these rules in the near future to effect a reduction in the volume of new classified material.

- 4. What are Government obligations in making declassified information generally available? How should these obligations be discharged, for instance, so as to assure fairness to different companies?
- 5. Is there anything else that you would like to bring to the attention of the Committee? Do you foresee any places in which the Committee is likely to get into serious difficulties?

The comments of each contractor are given in Sub-Section C.

- C. Wilmington Meeting with Contractors on 27 December.
 - (1) du Pont Company.

The Committee conferred with the following representatives of the du Pont Company:

Dr. C. H. Greenewalt Mr. J. N. Tilley

Dr. E. M. Evans Dr. H. W. Elley

Dr. R. G. Clarkson

Mr. G. M. Read Mr. J. S. Beekley

The du Pont Company will not undertake to make recommendations to the Manhattan District as to what fields or items of information should be declassified. However, they are glad to inform the District (see du Pont communication) as to the difficulty they encountered in getting a certain piece of work done.



They will also be willing to say what they can as to possible industrial applications of the information under consideration and gave some suggestions along this line in the meeting. They definitely do not wish to recommend for or against declassification of any particular item.

Certain divisions of the du Pont Company have an appreciable amount of classified material in their files such as routine business correspondence, plans for change houses, purchase orders for construction material, etc., the declassification of which would be a convenience to them, while other divisions of the company believe that the work involved in declassification would be more than would be required to maintain the files in their present form.

There was some feeling among the dn Pont representatives that if information has been declassified, the Government has a definite obligation to make that portion of it available to the general public which the Government owns and has the right to publish. They also state that the Government should take a positive stand on requiring information to be declassified and to be made generally available after declassification.

du Pont pointed out that the Government does not have the right to publish all of the information which the Government has received from du Pont but only that information which was obtained by the expenditure of Government funds. du Pont. however, would be willing to disclose enough of their own old "know-how" to make a complete report provided (a) other companies working in the same field would do the same thing, and (b) the patent position of the Government would be made known and would permit the granting of a satisfactory type of license. The Chairman pointed out that, while the Committee was sympathetic to the establishment of a rational patent policy, the entire matter of patents was completely outside the pervue of the Committee, and hence that the Committee's recommendations on declassification could not be predicated on any step which the Government might take in the future on the granting of licenses under patents.

It was hence concluded that for the time being the Government may make public only that information to which it is entitled under the terms of the contract. It was suggested that a possible mechanism for handling this matter would be for the Government to request the du Pont Company to prepare reports for publication which contain only information which the Government is entitled to publish.



du Pont believe that irrespective of patent policy, declassification should go ahead.

Discussions were held during which consideration was given individually to each of the major fields in which the du Pont Company has done work for the Manhattan District.

a. TNI (Hanford)

The general conclusion was that not much could be released about the activities at Hanford. A list of instruments suitable for declassification could be prepared. Also, it might be worth while to release certain information on remote controls; the opinion was expressed that the remote controls at Hanford were 20 years ahead of the rest of industry.

b. P-9 (Heavy Water)

The general conclusion was that there was very little about du Pont work on P-9 that could be declassified unless the whole of the du Pont P-9 Project were declassified. Design and operational data on the columns used, the largest of which was 15 feet in diameter, would be of great value in industries where distillation is involved, such as the oil industry and the alcohol industry; the du Pont Company also would like to use information from the P-9 Project in other parts of their own business.

A suggestion was advanced that the availability of heavy water should be made known generally in order to stimulate research on the uses of heavy water.

c. Fluorine and Fluorocarbons.

The opinion was expressed that knowledge of the existence and properties of fluorocarbons would not be of great advantage to an enemy but would be very helpful to American industry. There was some feeling that while fluorocarbons should be manufactured and made available, the methods of manufacture should not be disclosed at this time.

(2) Hooker Electrochemical Company. (Fluorine and Fluorocarbons)

The Committee conferred with Mr. R. L. Murray and Dr. Bruno H. Wojcik of the Hooker Electrochemical Company.

Company of Salara



Hooker would like to get as much material declassified as possible, including business correspondence, etc.

Hooker felt that the Government had an obligation to foster the declassification and dissemination of information without, however, revealing its application in the manufacture of the atomic bomb.

In Hooker's particular case, they are not much concerned about disclosure of their previous "know-how" which might result from the publication of reports and papers on the work they did for the Government; they are perfectly willing to prepare such reports and papers prior to the formulation of a patent policy by the Government. Hooker agreed, in fact, that declassification and publication of information would be a step which might hasten the adoption of a definite patent policy on the part of the Government since manufacturers would then be in a position to ask for licenses. Until the matter of patents is cleared up industries will have to use the information made available at their own risk.

(3) Harshaw Chemical Company. (Fluorine)

The Committee consulted with Mr. K. E. Long of the Harshaw Chemical Company.

It was suggested that possibly "Fluorine Cells" could be declassified as an entity.

Harshaw would like to see as much material declassified as possible in order to decrease the work involved in taking care of classified information.

Harshaw is not concerned about the matter of publishing reports on work done for the Manhattan District from the point of view of disclosing old Harshaw "know-how".

Declassification should take place as soon as possible and should not be delayed pending the establishment of a patent policy.

(4) Combined Meeting.

After the Committee had consulted with representatives of each company separately, the Committee spoke with the du Pont, Harshaw, and Mooker representatives together. The conclusions





reached did not disagree with those set forth above, Harshaw and Hooker on the whole being most liberal in their views.

(5) General Matters.

Certain points of general interest were brought out at various times during the day. These are summarized below:

- a. Care must be taken to see that secrecy orders on patent applications are lifted concurrently with the declassification of the subject matter by the Manhattan District.
- b. The Army now has in operation some system for the declassification of the technical reports on German industries. The Manhattan District might be able to make use of some of the current declassification procedures.
- c. Mr. Greene of the Department of Commerce, Publication Bureau, has done a good job on the dissemination of the technical reports on German industries referred to above as well as on indices to the reports, and on cards containing abstracts of the reports. Perhaps something can be learned from Mr. Greene which will be of help to the Manhattan District.
- d. Care must be taken to protect people who publish papers, etc., from prosecution under the provisions of the Espionage Act. It should be remembered that the final determination of what information affects the national defense of the United States must be made by the courts; the declassification of a document by the Manhattan District does not necessarily mean that if someone publishes it he cannot be prosecuted.
- D. New York City Meeting with Contractors on December 28th.
 - (1) Stone & Webster Engineering Corporation.

The Committee conferred with Mr. A. C. Klein of the Stone & Webster Engineering Corporation.

Stone & Webster is not particularly interested in the declassification of material in their own files. A great deal of what they have has already been boxed up and put away in vaults. Stone & Webster is concerned, however, with the disposition of the large amount of classified material which they have sent out to other contractors, vendors, subcontractors, etc. They have over 100,000 receipts for classified documents which they have sent out. The disposition of the documents covered by





these receipts should presumably be decided by the Manhattan District. Mr. Klein suggested that a satisfactory solution would seem to be to send a letter to each organization which has received classified material from Stone & Webster stating that certain documents had been declassified by the Army and asking that the recipient of the letter likewise declassify the copies of the documents in their files. In any event, Stone & Webster hopes that they will not be asked to get back all of the documents for which they have receipts in their files. It was suggested by the Committee that another appropriate mechanism would be to have an officer with the assistance of some technically trained enlisted men, if necessary, declassify the documents as suggested in Section III-B-(2) a — top of Page 4.

It was generally agreed that it was not worth while in most instances to bother with the declassification of "Restricted" material.

Stone & Webster believes that the Government has a distinct obligation to see that information which would be of value is made available not only for the information and benefit of science and industry in general but also for the information and benefit of the different units of the Atomic Bomb Project.

Mr. Klein gave several examples of things which in his opinion should be made public; e.g., new techniques on the fabrication and installation of glass pipe developed by Stone & Webster at Oak Ridge, results of tests at the University of California on the pumping speeds of diffusion pumps made by various manufacturers, zircon insulators, electronic tubes, etc. Mr. Klein pointed out that the Boston Area Engineer had already declassified a large volume of papers by stamping "Declassified" on the outside of the folders in which they were filed; reports of Stone & Webster inspectors were cited as an example. It may be noted that such action is in accordance with the provisions of the Security Manual dated 25 November 1945 and agrees with the suggestions already made on Page 4 for the treatment of non-technical business papers.

(2) General Electric Company.

The Committee consulted with Dr. T. R. Rhea of the General Electric Company.

The General Electric Company is not particularly concerned whether or not the material in their files is declassified.



It would be only a minor nuisance for General Electric to allow all the material to retain its present classification.

General Electric feels that great care should be exercised in the declassification of documents and in particular that the connection of the Manhattan District with specific items of information should not be disclosed. General Electric feels that the writing of papers in which the subject matter is associated with the Atomic Bomb Project will be very revealing.

General Electric feels that it is desirable to get information declassified when it is not contrary to the interest of the Government to do so; such information should be made generally available.

Dr. Rhea brought up another problem which involves security although it does not bear on declassification. General Electric has already received two orders from a foreign country for equipment which from the very definite specifications given appears to General Electric to be quite similar to equipment supplied by General Electric for use on the Manhattan Project. General Electric would like to get the answer to two questions:

- (a) Should the orders be filled?
- (b) To whom in the Government should General Electric go for advice on a matter such as this?

Dr. Rhea pointed out that if General Electric did not fill the orders, the purchaser would probably go to some other manufacturer in this country who would not know anything about the Manhattan Project or who might be less scrupulous than General Electric and who would fill the orders. He suggested that the Army should make a study of this matter and set up a definite procedure for handling it if necessary. It was suggested to General Electric by the Committee that for the time being they ought to turn to the Manhattan District and more particularly to the District Engineer for advice on questions such as this.

(3) Westinghouse Electric Corporation

The Committee consulted with Dr. L. W. Chubb and Mr. J. B. MacNeill of Westinghouse Electric Corporation.

Westinghouse would like to see as much routine and business correspondence declassified as possible.

Westinghouse feels that where work was done at Government expense and is declassified, the information should be made available to everyone. When something is declassified, Manhattan District should see that papers are written and published but no information should be included as to applications.

Westinghouse would like to see the following subjects declassified if possible:

- a. Leak detectors (made by Westinghouse).
- b. Certain features of the centrifuge such as seals, bearings, and glands.
- c. Gas bearings motors.
- d. Diffusion type vacuum pumps.
- e. Improvements in vacuum technique developed in connection with the Calutron.

It was the opinion of Westinghouse that the following should remain classified.

- a. Dimensions, designs, and engineering data on the Calutron.
- b. New processes of isotope separation until they have been carefully checked.

In general, design, engineering and operational data should remain classified while purely scientific information should be more freely exchanged. Westinghouse felt that there should be free interchange of information among organizations such as Westinghouse which are working on the Project.

Mr. MacNeill stated that the country should have a broad plan for keeping up not only on the scientific phases of the Project but also on technological phases, e.g., designs have been suggested which would increase the output of the Calutron by 15 fold, etc.

(4) Tennessee Eastman Corporation.

The Committee conferred with Mr. E. P. Baker of the Tennessee Eastman Corporation.



Tennessee Eastman Corporation would be interested in having as much material declassified as possible. They believe that whatever can be declassified should be declassified and should be made available to the public. If need be, the Government should exert pressure on contractors to submit information for declassification and publication. Uniformity of the timing of the release and publication of information is important.

Tennessee Eastman is not concerned about the possible disclosure of some of its previous "know-how" in connection with publication of declassified information. As an example, they would be perfectly willing to have papers published on high vacuum techniques used at Y-12.

Mr. Baker was also interested in keeping to a minimum the creation of new classified documents. He pointed out that if fewer classified documents were prepared, less time and money would be spent in the operation of Y-12.

In summary, Mr. Baker said that Tennessee Eastman is generally sympathetic to declassification as far as it can be carried out. They would urge that the rules be made as definite as possible. Declassification should be carried out as uniformly as circumstances permit and at the same time for everyone. Declassification would definitely aid in keeping the best people on the job. Freedom of expression and recognition of effort by publication will make technical people happier.

The thought was expressed by a member of the Committee that compartmentalization was very bad. It would seem perfectly proper to keep information from the enemy but it should not be kept from friends.

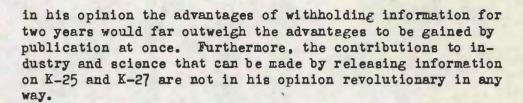
(5) Kelle Corporation.

The Committee conferred with Mr. P. C. Keith, Dr. Manson Benedict and Mr. P. B. Gordon, representing the Kellex Corporation.

Kellex believes that it would be very desirable to declassify existing documents to as great an extent as possible providing security is not seriously compromised. The Manhattan District has an obligation to make available to the country information which has been acquired at Government expense just the same as the Bureau of Mines does.

Mr. Keith took quite a strong stand on keeping almost all information classified for a period of two years. He said that





He feels at least as strongly about theoretical information as he does about information of an engineering or technical nature. He was most emphatic in stating that if an engineer is any good and if he has a good understanding of the theory of a process, he can take any process from any laboratory and put it into operation. His thought was that we should not publish all we know about the various components of the Project but that selected people could be informed so that good would accrue to the country from the information.

Keith feels that the theory of the diffusion method and of the cascade should not be published at this time nor should the details of the manufacture of fluorine or fluorocarbons. He believes that if the people who already know how to make fluorocarbons are permitted to manufacture them and supply them to the public, that is sufficient for the time being. He would say, however, that if there was one change which he might contemplate making in the memorandum he prepared for the Committee, it would be to release the restrictions he recommended on fluorine and fluorocarbons.

Dr. Benedict's feeling was that it would be worth while to publish information on the theory of the cascade but that the design of certain key pieces of equipment such as valves should not be released.

(6) Chrysler Corporation.

The Committee conferred with Mr. J. M. Hartgering of the Chrysler Corporation.

The Chrysler Corporation has consolidated their files and are not interested in declassifying documents which they have at this time.

Chrysler feels that everything about the Atomic Bomb should be locked up and kept. However, if anything is declassified, the Government has an obligation to make such information available





to the public when it was acquired by the expenditure of Government funds. Many manufacturers, however, will probably wish not to disclose their previous "know-how" which was developed with their own money. For example, the nickel plating of the inside of pipes was developed by Chrysler with Chrysler money and furthermore is based largely on old Chrysler "know-how". Hence, it is not a proper subject for the Government to disclose. However, the technique of welding nickel plated steel was developed by Chrysler with Government money and would be a proper subject for publication, if it were declassified.

(7) Allis-Chalmers Mamufacturing Company.

The Committee conferred with Mr. Edwin H. Brown of the Allis-Chalmers Manufacturing Company.

Allis-Chalmers would like to have as much matter in their files declassified as possible both from the point of view of reducing the work required to take care of classified information and also in order to permit Allis-Chalmers to make commercial use of the information. Mr. Brown said that at the moment the blowers made by Allis-Chalmers for the Manhattan District were erased from men's minds. Allis-Chalmers would like to publish information about these blowers.

(8) Crane Company.

The Committee conferred with Mr. A. M. Hauser of the Crane Company.

The Crane Company would like to have the classified material in their files declassified to reduce the effort required to take care of it and also to permit the Crane Company to use some of the information in their own business. Their interest lies, of course, in valves which were supplied to K-25; Mr. Hauser pointed out that these valves are all practically of conventional design and that their competitors are currently selling similar products without restriction.

(9) Union Carbide & Carbon Corporation.

The Committee conferred with the following representatives of the Union Carbide & Carbon Corporation:

J. A. Rafferty

R. H. Crist

L. A. Blies

L. M. Currie Mr. Alspaugh

Mr. At spange

G. M. Murphy





Union Carbide & Carbon does not believe that it would be worth while to bother declassifying material in their files simply as a matter of convenience since their estimate is that only about 20-25% would be declassifiable.

They urge that publication of information should be carried out in such a way that the interest of the Manhattan District is not revealed. It was pointed out that an important feature of publication was to see that, as far as possible, everyone concerned should publish at about the same time. Pressure should be brought to bear by the District if necessary to see that this is done.

Mr. Rafferty said that we should be very careful about what is released. Mr. Bliss said that the importance of the diffusion process would not be great for general use and that he saw no reason why the theory should be released. It would be just "one more tool" for industry.

Mr. Rafferty said that just at this time an attempt was being made to launch the UNO and also to get a general agreement set up for the control of the Atomic Bomb. He urged that we go very cautiously until these are set up and in operation. It was pointed out by Dr. Urey that if, however, we hold back on releasing information, other countries may consider this as a threat to their security and thus our action will actually hasten war. The final suggestion of Union Carbide & Carbon was that before information is released to any extent, some sort of control should be set up.

(10) General Matters.

- a. Many contractors do not seem to have the latest copy of the Manhattan District Security Manual. Steps should be taken to see that the information in the manual on the classification of new documents is made available to all people who originate documents which need classification.
- b. During the discussions, it was learned that leak detectors made by the General Electric Company had been declassified by General Groves as a result of a request by General Electric but that leak detectors made by Westinghouse were still classified due in part in all probability to the fact that Westinghouse had made no request for their declassification. Instances of this sort should be avoided in order to insure equal treatment to all concerned.

E. New York City Meeting with General Groves on December 29th.

The Committee conferred with General Groves on the morning of 29 December.

The first item of discussion dealt with the position of the General in recommending or authorizing further declassification and release of information in view of the testimony which had been given before the Senate Atomic Energy Committee, and in view of published articles stating that no information about the atomic bomb should be released. A particular case which was cited was the public criticism of the release of the Smyth Report. Although General Groves appeared friendly to a liberal declassification policy, he pointed out that in view of so much publicly expressed sentiment in favor of retaining all information, it would be difficult for him to recommend or authorize further declassification and release of information and that he would need strong support to do this.

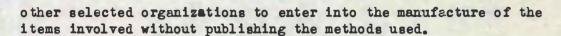
The Committee pointed out that many of the industrial people with whom they had conferred during the preceding two days had thought that the issuance of the Smyth Report was ill-advised until an explanation of the circumstances leading up to its preparation and release was given them by the Committee.

Some discussion followed about the advisability of including the basic theory of the cascade in Class I. It was suggested that the Committee might want to reword this item a little bit; also, some indication should be given of the major adventages to be gained in disclosing information on this item at this time.

One thing which the General thought would be of help to him in adopting the Committee's recommendations on declassification would be a compilation of brief statements of what was known prior to say, I January 1942 about each of the classified elements whose properties have been recommended for inclusion in Class I together with a short summary of what further information would be released as a result of the inclusion in Class I.

The General suggested also that justification should be given for the declassification of the properties of each element in Class I in Table I and of each Topic in Class I in Section IX. He suggested that this could be most easily handled by making up a short list of numbered reasons for declassification and indicating the reasons applicable for each property or topic by number.

Discussion followed as to whether manufacturing "know-how" should be released generally at this time. The Committee pointed out that several industriel companies suggested that a possible way to handle the matter was to allow the "know-how" to stay for the time being in the hands of the people who already had it and encourage them and possibly a few



General Groves did not indicate approval or disapproval of this method of procedure but suggested that the Committee report it as a possibility in their next memorandum.

New York City Discussion by the Committee.

The Committee gave further consideration to the matters which had been brought to its attention by General Groves. Although it was necessary for the General to return to Washington before this phase of the meeting had been completed, the impression was gained that he would feel friendly to proposals such as those discussed below.

The members of the Committee present felt, in their discussion of the situation, that some sort of a public statement of the conclusions of the Committee on the matter of declassification ought to have a beneficial effect in framing public opinion. The suggestion was made that the Committee on Declassification should send a letter to the McMahon Committee setting forth their philosophy on declassification and incidentally expressing their approval of the release of the Smyth Report; this met with the approval of the members present.

The members of the Committee present also discussed an additional step which might help in the declassification program. This would be to have a meeting of the Committee on Declassification and make a public announcement of the feelings of the Committee on the desirability of a liberal and forward looking declassification program. Such a meeting should be held in a city where good publicity could be arranged. Reporters should be invited and also representatives of Time and Life; a picture of the Committee should be taken. It was agreed that further consideration should be given to this proposal.

RICHARD C. TOLMAN,

Richard C. Toluman

Chairman, Committee on Declassification.

JOHN R. RUHOFF,
Secretary to the

Committee on Declassification.