

OR:JMR

Oak Ridge, Tennessee
August 18, 1958

Union Carbide Nuclear Company
Post Office Box F
Oak Ridge, Tennessee

Attention: Dr. J. A. Stewart, Deputy Director
Oak Ridge National Laboratory

W

Subject: ORNL LOCAL CLASSIFICATION GUIDE IN THE FIELD OF CHEMICAL
PROCESSING (OR 58-3-13)

Gentlemen:

The Headquarters Division of Classification has approved the above
referenced classification guide for immediate use. After reproduction
of the guide, we shall appreciate your making the following distribution:

- Director, Division of Classification, AEC Headquarters.....10
- Chief, Declassification Branch, Oak Ridge Extension.....10
- Director, Research and Development Division, ORNL..... 5

Please express my appreciation to the members of your staff who partici-
pated in this very difficult task.

Very truly yours,

Norman N. Roth
Director
Research and Development Division

cc: C. E. Carter, DCED
R. C. Armstrong ✓

BEST COPY AVAILABLE

REPOSITORY Oak Ridge Ops
 COLLECTION Records Holding Area
 BOX No. A-78-4 Class. Official ORNL - CG Chem.
 Res. & Dev. Files Bldg.
 Folder Med. Health + 27142H
Safety Folder Tech. 1958-60
Hazards + Control
1962 3-2

OAK RIDGE NATIONAL LABORATORY

OPERATED BY

UNION CARBIDE NUCLEAR COMPANY



POST OFFICE BOX X
OAK RIDGE, TENNESSEE

November 2, 1959

U. S. Atomic Energy Commission
Post Office Box E
Oak Ridge, Tennessee

Attention: Dr. H. M. Roth

Gentlemen:

Subject: Revision to ORNL Local Classification Guide in the Field of
Chemical Processing, CF 58-3-13

At a meeting held in L. R. Michener's office on October 29, 1959, attended by Q. F. Horton, Jack Vanderryn, H. F. Carroll, J. R. Patton, W. E. Clark, and E. J. Murphy, it was agreed that the ORNL's participation in the Gnome Project should be carried out on a strictly unclassified basis. In order for this to be accomplished it is necessary to make certain revisions in Paragraph 10. of the ORNL Local Classification Guide in the Field of Chemical Processing. The proposed changes in the guide were reviewed by H. F. Carroll on October 30 and in his opinion the proposals were quite acceptable.

Enclosed for your review and approval are four copies of the proposed changes. We would appreciate an early reply in order that we may make plans regarding our participation in the program.

Sincerely yours,

Signed: J. A. Swartout

J. A. Swartout
Deputy Director

JAS:EJM:dbp

Encl.

CC: C. E. Center, w/o encl.
F. R. Bruce, w/o encl.
E. J. Murphy, w/o encl.

1183968

NOV 3 - 1959

10.0 MICE PROGRAM

- 10.1 The basic chemistry of U, Pu, H³ under simulated conditions of the contained nuclear explosion; and research and development concerned with the physical state of the products of the explosion, and methods for their recovery.
- 10.2 Aspects of the MICE program which reveal weapons or production data

U

S-RD

O:QFH

Oak Ridge, Tennessee
May 31, 1960

Union Carbide Nuclear Company
Post Office Box X
Oak Ridge, Tennessee

Attention: Dr. J. A. Swartout, Deputy Director
Oak Ridge National Laboratory

Subject: DOWNGRADING NOTICE

Gentlemen:

This letter is authority to downgrade our Secret-Restricted
Data letter of December 15, 1959, subject "Revision to ORNL
Local Classification Guide in the Field of Chemical Process-
ing, CF 53-3-13," to Confidential-Restricted Data.

Very truly yours,

ORIGINAL SIGNED BY RICHARD B. MARTIN ACTING

Herman M. Roth
Director
Research and Development Division

RK CC: C. E. Center, JCNC

Dec 2-1
1000-1000

OFFICE ▶	Classification Horton:bj	Res. & Dev.			
SURNAME ▶		<i>Martin</i>			
DATE ▶		<i>5/27/60</i>			

1183970

Office Memorandum • UNITED STATES GOVERNMENT

TO : Those Listed Below

DATE: February 15, 1960

FROM : Herman M. Roth, Director
Research and Development Division, Oak Ridge

SUBJECT: CLASSIFICATION OF OCTOBER 30, 1959, MEMORANDUM

SYMBOL: ORR:JV

We do not feel that any useful purpose (beyond the repetition of well-known unclassified scientific facts) would be served by additional correspondence on the above subject. The Division of Classification states that the fact that reaction (d) given in my memorandum of January 13, 1960, to Murray L. Nash, is not used in the design of a thermonuclear device is Secret-Restricted Data.

We, therefore, request that you delete the troublesome phrase which appears on lines 36 and 37, page 2, of my October 30, 1959, memorandum to Russell H. Ball.

Herman M. Roth
Herman M. Roth

Addressees:

R. H. Ball, Director, Special Projects Division, SAN
D. R. Miller, Division of Research, HQ
J. S. Kelly, Chief, Peaceful Nuclear Explosives Branch, DMA, HO.
R. C. Armstrong, Assistant Manager for Operations, ORO
→ L. R. Michener, Classification Officer, ORO
H. F. Carroll, Chief, Division of Classification, ORE
F. R. Bruce, Oak Ridge National Laboratory, Oak Ridge

*Sec. 2-1
(Chem. Processing)*

1183971

Office Memorandum • UNITED STATES GOVERNMENT

TO : Russell H. Ball, Director, Special Projects DATE: October 30, 1959
 Division, San Francisco Operations Office

FROM : Herman M. Roth, Director
 Research and Development Division, Oak Ridge Operations

SUBJECT: ORNL PARTICIPATION IN PROJECT GNOME mg

SYMBOL: ORR:JV

Reference is made to the following correspondence:

- a. Your memorandum dated September 17, 1959, symbol P:RHB, subject "Project GNOME - Plowshare Program"
- b. Your teletype dated October 14, symbol P:FJV, on the above subject
- c. Your memorandum dated October 19, symbol P:RHB, subject "Isotope Recovery Experiments on GNOME."

The proposed ORNL participation in project GNOME will consist of attempts at sampling the environment of the detonation. The results of this experiment will yield data on the history of contained nuclear detonations; will provide data to assist in evaluating the possibility of the utilization of neutrons, high temperatures and pressures achieved in such explosions; and to product recovery techniques.

Four types of samples are proposed for this program:

1. Samples of the detonation products during the initial stages of detonation will be taken if possible.
2. A few seconds after the detonation, samples of the gas phase will be taken.
3. A few weeks after the detonation, the gas which will be circulated during the IRL heat utilization studies will be sampled.
4. A few weeks after the detonation, core samples will be taken.

The design of this sampling equipment has started; part of the instrumentation has been obtained from a preliminary experiment at the Nevada Proving Grounds in 1958.

1183972

*Sec 2-1
 (ORNL) Herman Roth*

October 30, 1959

The estimated cost of ORNL participation in achieving the above objectives is \$42,000, including a possible subcontract of \$10,000. This cost is distributed as follows:

1. Fabrication of the sampling lines, vessels, and valves, \$20,000.
2. Fabrication of the instrumentation for timing the sampling sequences, \$12,000.
3. ORNL has consulted the Frankford Arsenal on the possibility of maintaining the integrity of a pipe extending from ground level to the site of the detonation by balancing the external pressure on the pipe by an explosion within the pipe, or by packing the pipe with a high strength material which may be burned out rapidly after the event. Frankford Arsenal's participation has resulted in no cost to ORNL thus far. However, if a decision is made to employ either of these proposals, it may be necessary for ORNL to transfer an estimated \$10,000 to Frankford Arsenal for investigation of possible explosives for this application.

In addition, field support for installing sampling equipment is estimated to require \$20,000. It is our understanding that funds for the required field support will be forthcoming through SAN and thus we have not planned to include them in the ORNL budget.

We definitely feel and have felt for a long time that the ORNL program can and should be carried out on a completely unclassified basis. In our opinion, the ORNL participation as outlined in this memorandum is unclassified. This is concurred in by the ORO Classification Officer and the Declassification Branch, Oak Ridge.

To give you a better understanding of the motivation behind the ORNL work, the participation of ORNL in GNOME is designed to serve the following purposes:

1. Constitute a field test of processes developed in the laboratory for the recovery of isotopes resulting from neutron activation as by-products from underground events carried out in connection with power production and related projects. The isotopes of primary interest to ORNL include the transplutonium elements and tritium with relatively less interest attached to the fissionable isotopes U233 and Pu239.

~~Some field tests are being conducted in the laboratory~~
~~before circulation of the heat transfer fluid in order to avoid~~

contamination of the latter. As a by-product of value to the thermonuclear power project (Sherwood) it appears that its recovery concurrently with its removal (along with the fission gases) to levels below tolerance would help to make the power outlook economically more attractive.

The transplutonium elements are also found among the debris from thermonuclear devices and, in fact, their synthesis in this way has the advantage of circumventing the high loss resulting from fissioning of intermediates during the long irradiation necessary for synthesis in conventional reactors. Recovery of the fissionable isotopes, U233 and Pu239, of interest to the reactor program, will be investigated concurrently with that of the transplutonium elements from the solid debris.

2. Demonstrate the feasibility of prompt venting of the underground camouflet for the purpose of purging the active gases, thus allowing the circulation of heat exchange fluids to begin as soon as possible. This should also result in more complete recovery of tritium from the original gaseous mixture before it has had an opportunity to diffuse into the surrounding medium.
3. Investigate the phenomenology and chemical history of the event by taking sequenced gas samples during the first several seconds post-shot, plus investigation of the gas and solid phase samples as described above. The nature of the chemical reactions taking place in a given medium (salt in the case of GNOME) will be of interest to those who have proposed the use of underground nuclear devices as a means of carrying out chemical reactions in situ. They will also be of interest in connection with the possible recovery of tritium and any other gaseous by-products from the event.

ORNL has no plans for salting the GNOME device with materials for the purpose of neutron activation. A small tritium spike is planned in order to test the feasibility of recovering tritium, the completeness with which it can be removed from the gas stream, and to serve as a readily available "chemical indicator" as to the nature of the reactions taking place underground during the period before it becomes feasible to sample the salt melt and to recover solid specimens. So far as heavier isotopes are concerned, we plan to make use of the Pu and U already present in the debris as indicators of the distribution and behavior of the actinides as a group. Fission product chemistry and distribution will also be studied.

142

~~CONFIDENTIAL~~

X-847

INTRA-LABORATORY CORRESPONDENCE

OAK RIDGE NATIONAL LABORATORY

TO :

FROM : E. J. Murphy, Coordinating Organization Director

SUBJECT: CF 58-3-13, Classification Guide in the Field of Chemical Processing

Attached hereto is a copy of the revision of Topic 10. for the subject guide. This revision is to be inserted on Page 14. replacing the existing topics pertaining to the Mice Program.

EJM.
E. J. Murphy

EJM:dbp

Attach.

When separated from enclosure
handle this document as:

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~~Document transmitted with
contains RECORDED DATA.~~

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1183976

UNITED STATES
ATOMIC ENERGY COMMISSION

COVER SHEET AND ROUTE SLIP FOR ~~CLASSIFIED~~ MATERIAL

	TO	INITIALS	DATE
1	Michener		
2	Res. Div.		
3	<p>Michener received copies from Tinsley. Since these were transmitted by letter to Rath assume they are R & O's -</p>		
4			
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11			
12			
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15			
16			
	FROM		

We have copies

MAIL AND FILE ROOM
RESEARCH AND DEVELOPMENT DIVISION

JUN 13 1960

1183977

40

~~CONFIDENTIAL~~

X-847

INTRA-LABORATORY CORRESPONDENCE
OAK RIDGE NATIONAL LABORATORY

TO :

FROM : E. J. Murphy, Coordinating Organization Director

SUBJECT: CF 58-3-13, Classification Guide in the Field of Chemical Processing

Attached hereto is a copy of the revision of Topic 10. for the subject guide. This revision is to be inserted on Page 14. replacing the existing topics pertaining to the Mice Program.

EJM
E. J. Murphy

EJM:dbp
Attach.

When separated from enclosure handle this document as:
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~~Document contains information concerning restricted data~~

~~CONFIDENTIAL~~

1183978

~~CONFIDENTIAL~~

Those Listed Below

June 27, 1960

L. R. Michener, Classification Officer
Office of the Assistant Manager for Operations

CP 58-3-13, CLASSIFICATION GUIDE IN THE FIELD OF
CHEMICAL PROCESSING

SYMBOL: O:OFH

Enclosed herewith is a copy of the revision of Topic 10 for
the subject guide. This revision is to be inserted on Page 14,
replacing the existing topics pertaining to the Misc Program.

L. R. Michener

Enclosures:
As Noted

Addressees:
O. F. Quinn, Director, Div. of Prod., Headquarters
T. B. Miland, SMOO
L. C. Cooper, NYOO
C. L. Robinson, HOO

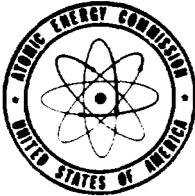
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Insert Proper Classification

*Sec. 2-1
Chem. Process*

~~CONFIDENTIAL~~

OFFICE ▶	Classification horton:me				
SURNAME ▶	<i>Q. F. H.</i>				
DATE ▶	1183979				



~~CONFIDENTIAL~~

UNITED STATES
ATOMIC ENERGY COMMISSION

IN REPLY REFER TO:

OR:KMH

Oak Ridge, Tennessee
January 27, 1967

Union Carbide Corporation
Nuclear Division
Post Office Box X
Oak Ridge, Tennessee

Attention: Dr. A. M. Weinberg, Director
Oak Ridge National Laboratory

Subject: MATERIAL ANALYSIS FOR REDSTONE ARSENAL
(INTERAGENCY AGREEMENT 40-103-66)

Gentlemen:

Reference is made to your letter dated December 14, 1966, subject as above, advising that it is feasible for ORNL to perform the analysis work required by Redstone Arsenal in accordance with the scope of work attached to MIPR 77160100-99-7007, providing a cost authorization of \$7,265. Accordingly, we have accepted the Redstone Arsenal MIPR as an Interagency Agreement covering ORNL performance of the requested work. Copies of the MIPR and our acceptance letter are enclosed.

The security aspects of performing the analysis of the Army material classified Secret-RD has been reviewed by the ORO Security Division. The security safeguards considered necessary for this work are set forth in the enclosed memorandum summarizing the understanding of the ORNL security plan details. All security plan details set forth in the enclosed memorandum shall be followed in carrying out the work.

ORNL costs will be reported under Program 40. A UCCND invoice for reimbursement of actual costs incurred will be submitted to Redstone Arsenal upon completion of the work. Provision for the authorized funding of \$7,265 will be made in the ORNL Financial Plan for Program 40.

WHEN SEPARATED FROM ENCLOSURES, HANDLE
THIS DOCUMENT AS *unclassified*

~~Classification here with Count(s)
Classification INFORMATION~~

1183980

~~CONFIDENTIAL~~

~~CONFIDENTIAL~~

UCCND - Dr. A. M. Weinberg

- 2 -

January 27, 1967

Performance of the requested work for Redstone Arsenal, in accordance with the enclosed MIPR, is approved as part of the scope of work to be performed by ORNL under Article III, Paragraph C, Contract No. W-7405-ENG-26.

Very truly yours,

Herman M. Roth

Herman M. Roth
Director
Research and Development Division

Enclosures:

1. MIPR (4)
2. AEC Acceptance Letter (4)
3. Security Memo (4)

CC: S. G. English, HQ, w/encls. 1 and 2
C. E. Larson, UCCND, w/encls. 1 and 2
R. C. Armstrong, w/encls. 1 and 2
F. P. Callaghan, w/encls. 1 and 2
C. W. Hill, w/encls. 1 and 2
N. A. Shearon, w/encls. 1 and 2
W. H. Henderson, w/encls. 1 and 2
L. R. Michener, w/encls. 1, 2 and 3 ✓

1183981

~~CONFIDENTIAL~~

MILITARY INTERDEPARTMENTAL
PURCHASE REQUEST

PAGE 1 OF 1 PAGES

2. FSC	3. CONTROL SYMBOL NO.	4. DATE PREPARED 14 Nov 66	5. MIPR NUMBER 77160100-99-7007	6. AMEND. NO. Orig
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7. TO: Atomic Energy Commission Oakridge Tennessee	8. FROM: (Agency, Name, Telephone Number of Originator) U. S. Army Missile Command ATTN: AMSMI-RPO Redstone Arsenal, Ala.
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9. ITEMS ARE ARE NOT INCLUDED IN THE INTERSERVICE SUPPLY SUPPORT PROGRAM AND REQUIRED INTERSERVICE SCREENING HAS HAS NOT BEEN ACCOMPLISHED

ITEM NO.	DESCRIPTION (Federal Stock Number, Nomenclature, Specification and/or Drawing No., etc.)	QTY	UNIT	ESTIMATED UNIT PRICE	ESTIMATED TOTAL PRICE
	To provide authority to perform tasks in accordance with attached Scope of Work. Project: NIKE X PBC Nr: 792812-35-00-7400 ACMS Code: 5242.12.19600				\$7,265.00

10. SEE ATTACHED PAGES FOR DELIVERY SCHEDULES, PRESERVATION AND PACKAGING INSTRUCTIONS, SHIPPING INSTRUCTIONS AND INSTRUCTIONS FOR DISTRIBUTION OF CONTRACTS AND RELATED DOCUMENTS

11. GRAND TOTAL
\$7,265.00

12. TRANSPORTATION ALLOTMENT (Used if FOB Contractor's Plant) 21X4992.631 63 S01021	13. MAIL INVOICES TO (Payment will be made by) Finance & Accounting Army Missile Command Redstone Arsenal, Ala.
--	--

14. FUNDS FOR PROCUREMENT ARE PROPERLY CHARGEABLE TO THE ALLOTMENTS SET FORTH BELOW, THE AVAILABLE BALANCES OF WHICH ARE SUFFICIENT TO COVER THE ESTIMATED TOTAL PRICE

21X4992.631 63 S01021

15. AUTHORIZING OFFICER (Type Name and Title) M. A. JONES, Lt. Colone, FC, F&A	16. SIGNATURE <i>M. A. Jones</i> Officer	17. DATE 15 Nov 66
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1183982

SCOPE OF WORK

DATE: 1 November 1966

FROM: Cpt. Arthur H. Werkheiser

SUBJECT: Contract for Material Analysis

1. It is desired that three copper tubes, parts of an apparatus which shall be named Ionization Chamber Experiment, be analyzed in order to determine the distribution of impurity material deposited on their inner surfaces. These open ended cylinders are each 2 7/8" long and 2 7/8" in diameter with a wall thickness of 3/16". The materials deposited on the inner surfaces are Zn and Cd and in two cases, possibly a combination of the two materials. It is desired that the density of deposited material be determined to within 1 part per million parts of Cu. The copper cylinders may be turned down (from the outside) on a lathe so as to increase the impurity to Cu ratio. The density of impurity material is to be sampled from the cylinder in 1 cm x 1 cm lots at preselected points. In order to determine the distribution of impurity materials to a sufficient degree of accuracy, radiochemical analysis should be involved (involving neutron activation) and perhaps isotope separation. The ionization chamber apparatus will be delivered to the contractor.

2. An added difficulty to the analysis occurs because the cylinders must be treated under security conditions commensurate with its classification which is SECRET-RD. Also, the cylinders are coated with a contaminating material of an undefined nature and while it can be removed from the outside of the cylinder, it probably cannot be removed from the inner surfaces without disturbing the distribution of deposited impurities. Further, the cylinders are radioactive (principally β active) to a level of about 200 - 400 m r/hr. The energy spectrum of radiation emitted from the experimental apparatus is the SECRET-RD information which necessitates such a classification. Authority to declassify the experimental apparatus can be requested when the activity of the material is reduced to about the level of background or when the material is reradiated so as to change the emission energy spectrum.

3. It is requested that photographs be taken of the Ionization Chamber Apparatus before the cylinders are removed for analysis and also that pictures be taken of the cylinders by themselves so as to show the inner surfaces. The remainder of the apparatus (without the cylinders) will be shipped by the contractor to:

Mr. Starkey
Ballistics Research Laboratory
Aberdeen Proving Grounds
Aberdeen, Maryland

It is further requested that an exploratory analysis be conducted initially with 4 1 cm² samples taken from preselected locations from each of the three cylinders. Results of the analysis will be forwarded to Cpt. A. H. Werkheiser at which time it will be decided by him whether to continue with a full analysis of each of the three cylinders or whether the contract should be terminated at that time due to the probability that further data will produce inconclusive results. The photographs and deposition density information can be treated as unclassified information.

1183983

SCOPE OF WORK CONTINUED

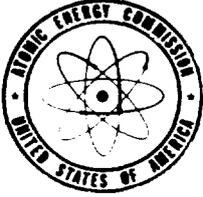
4. The analysis involved in the above paragraphs involves an agency with the ability to handle SECRET-RD materials, to handle and machine radioactive materials, to perform accurate radiochemical analysis, and to possibly perform isotope separation. Further, such an agency should have at their disposal a reactor with a fairly high thermal neutron flux and facilities for irradiating specimens in such a flux. A review of such requirements justifies naming Oak Ridge National Laboratories as sole source.

5. An estimate of the cost of such an analysis includes the following:

(a) Sample Preparation (includes pictures)	\$ 500.00	
(b) Exploratory Analysis @ \$10 - \$40 per sample 12 Samples	\$ 120.00	- \$ 480.00
(c) Full Analysis @ \$10 - \$40 per sample 150 Samples	\$1500.00	- \$6000.00
(d) Decontamination	\$ 250.00	
(e) Shipping Apparatus to Maryland	\$ 35.00	

The ambiguity on the cost of analysis per sample arises because two possible types of analysis is involved.

(1) Radiochemical Analysis	\$ 10.00	
(2) Radiochemical Analysis, Preanalysis, Isotope Separation, Post Analysis	\$ 40.00	



UNITED STATES
ATOMIC ENERGY COMMISSION

IN REPLY REFER TO:

OR:KMH

Oak Ridge, Tennessee 37830
January 27, 1967

U. S. Army Missile Command
Redstone Arsenal
Alabama

Attention: AMSMI-RPO, Building 4505
SMIDW-FI, AIF Division, Building 8027

Subject: MATERIAL ANALYSIS FOR REDSTONE ARSENAL
(AEC INTERAGENCY AGREEMENT 40-103-66)

Gentlemen:

Reference is made to MIPR No. 77160100-99-7007 dated November 14, 1966, requesting the assistance of the AEC's Oak Ridge National Laboratory (ORNL) in analyzing certain material in accordance with the scope of work attached to the MIPR.

We have established the feasibility of performing the requested material analysis at ORNL, and we accept the MIPR as an agreement between our agencies to have ORNL perform the work on the basis of U. S. Army Missile Command reimbursement of actual costs not to exceed the \$7,265 authorized without prior agreement. In establishing the feasibility of the analysis work, ORNL has placed a limitation of + 5% of the deposited material on the degree of accuracy requested in Paragraph I of the MIPR scope of work statement. Assuming this limitation will be acceptable from a technical standpoint, we have authorized performance of the requested work under our cost-type management contract with Union Carbide Corporation for operation of the AEC's Oak Ridge National Laboratory.

The technical aspects of the work may be handled directly between the personnel of Redstone Arsenal and ORNL. All administrative, fiscal, and security matters should be referred to the AEC.

The AEC will assume responsibility for classification and the security requirements involved in handling the Secret-RD materials furnished to ORNL by the Army and all information and data resulting from analysis of these materials. Appropriate instructions have been provided to ORNL with respect to classification and security.

1183985

End

U. S. Army
Missile Command

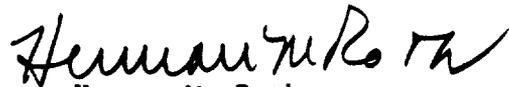
- 2 -

January 27, 1967

Upon completion of the work, a single billing for reimbursement of the AEC appropriation for actual costs incurred in performing the analysis work will be submitted to the Redstone Arsenal on a special Union Carbide invoice form in lieu of an SF 1080. The Army will make payment directly to Union Carbide who will deposit the receipt for credit to the Treasurer's account for the AEC.

We appreciate this opportunity to provide assistance to Redstone Arsenal.

Very truly yours,



Herman M. Roth
Director
Research and Development Division

1183986

MEMO ROUTE SLIP Form AEC-93 (Rev. May 14, 1947)		See me about this.	For conc: ce.	For action.
		Note and return.	For signature.	For Information.
TO (Name and unit) Dr. E. J. Murphy Building 4500 ORNL	INITIALS	REMARKS The Division of Production, Headquarters does not have a copy of the ORNL Local Classification Guide in the Field of Chemical Processing (CF 58-3-13). Would appreciate your sending us an additional copy for their use.		
	DATE			
TO (Name and unit)	INITIALS	REMARKS LRM <i>Cop. 36B sent to Guman</i>		
	DATE			
TO (Name and unit)	INITIALS	REMARKS <i>ORO 105252 3-14-60 wml</i> <i>(519)</i>		
	DATE			
FROM (Name and unit) L. R. Michener Classification Officer ORO	REMARKS			
PHONE NO. 4294	DATE 3-3-60			

USE OTHER SIDE FOR ADDITIONAL REMARKS

☆ U. S. GOVERNMENT PRINTING OFFICE : 1957—O-422007

1183987

MEMO ROUTE SLIP Form AEC-98 (Rev. May 14, 1947)		See me about this. Note and return.	For conc: ce. For signal ..	For action. For information.
TO (Name and unit) Dr. E. J. Murphy ORNL Bldg. 4500	INITIALS	REMARKS If available, we would like an additional copy of "ORNL Local Classification Guide in the Field of Chemical Processing", (58-3-13) for Mr. Thomas B. Niland, Classification Officer, Savannah River Operations Office.		
	DATE			
TO (Name and unit)	INITIALS	REMARKS LRM		
	DATE			
TO (Name and unit)	INITIALS	REMARKS <i>Cy 25 B sent to Niland</i> <i>Slod 5-12-60</i> <i>ORO 105940</i>		
	DATE			
FROM (Name and unit) L. R. Michener Classification Officer ORO	REMARKS			
<i>LM</i>				
PHONE NO. 4294	DATE 5-3-60			

USE OTHER SIDE FOR ADDITIONAL REMARKS

U. S. GOVERNMENT PRINTING OFFICE : 1957—O-422007

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