68A1096 #218 WASTE Disposal

FILE COPY

ORB:AS

Oak Ridge, Tennessee
September 7, 1960

Mr. M. F. Clay
Industrial Hygiene
Flight Propulsion Division
General Electric Company
Cincinnati 15, Ohio

Subject: DISPOSAL OF THORIUM-MAGNESIUM ALLOY WASTES

Dear Mr. Clay:

This will confirm our recent telephone conversation relative to your letter of inquiry dated August 19, and to the telephone call from Mr. Norman Guild on August 30, in regard to your request to dispose of approximately 140 55-gallon drums of thorium-magnesium alloy waste in the waste burial ground at Oak Ridge. As stated in my letter of July 22, 1960, thorium contaminated waste is acceptable for burial in Oak Ridge, thorium being a source material. I was not, at that time, addressing myself to the matter of chemical, fire or other hazards that might be associated with the transportation and handling of such materials, since the detailed arrangements for actual disposal must be made with the Oak Ridge National Laboratory, which operates the burial ground for the Commission.

Mr. J. N. Stimac, purchasing agent in your Division, wrote to this office on August 1, and to the Oak Ridge National Laboratory on August 11, in regard to this same problem. Mr. F. N. Case of ORNL, in his reply dated August 17, 1960, stated that thorium-magnesium metal in "large pieces" was acceptable, but that "turnings and fines" were not because of the associated fire hazard. Mr. Case indicated that this latter group of waste materials would be acceptable if "reacted with acid or otherwise rendered" safe from the point of view of fire hazard. In summary then thorium-magnesium wastes are considered acceptable for burial in Oak Ridge providing the fire hazard potential is carefully considered and controlled.

In view of the fact that these wastes pose a continuing disposal problem for you, I suggest you consider the possibility of burning these materials as an alternate, and perhaps more desirable method of disposal. We have had demonstrated success burning uranium

Chem Risk Repository #1243

Q 6238

OFFICE ▶	Biology Br.		MEDICINE, HEALTH & SAFETY		3-4	Waste Disp
SURNAME ▶	Schoen					misc
DATE ▶	9/7/60					

Form AEC-318 (Rev. 9-53) U. S. GOVERNMENT PRINTING OFFICE 16—62761-3

AUG 22 1960

September 7, 1960

contaminated wastes with effective air dust control in the stack effluents and economical recovery of uranium from the residues. It is possible that the savings in handling, transportation and disposal costs incurred in the shipment of this material to Oak Ridge, plus the value of the thorium that may be recovered, would make this method more economical as well as more expedient.

We hope this information will be helpful to you in the solution of your waste disposal problem.

Very truly yours,

ORIGINAL SIGNED BY
A. A. SCHOEN

Arthur Schoen
Health Physicist
Biology Branch
Research and Development Division

CC: F. N. Case, ORNL
J. N. Stimac, GE
OK Norman Guild, GE

OFFICE ▶	Biology Br.		MEDICINE, HEALTH & SAFETY			Waste Disp.
SURNAME ▶	Schoen					
DATE ▶	9/7/60					

Form AEC-318 (Rev. 9-53) U. S. GOVERNMENT PRINTING OFFICE 16—62761-3

GENERAL ELECTRIC COMPANY

FLIGHT PROPULSION DIVISION

TELEPHONE POPLAR 1-4100

CINCINNATI 15, OHIO

August 19, 1960

Mr. Arthur Schoen
Health Physicist
Biology Branch
Research and Development Division
U.S. Atomic Energy Commission
P.O. Box E
Oak Ridge, Tennessee

Reference: ORB:AA5

Dear Mr. Schoen:

Thank you for your prompt reply in reference to our request for information relative to the disposal of 4% thorium-magnesium alloy waste. You indicated that this type of waste is acceptable for disposal at Oak Ridge although it would have to be handled in a manner different from the waste normally received. Also it was stated that special handling procedures would have to be developed for this material.

We currently have approximately 140 55-gallon drums of this waste material on hand and urgently desire to dispose of it. Are you currently set-up to receive and dispose of this type of material? If you are able to receive this material at this time, will you please inform us of the procedures to be followed? Your early attention to this request will be greatly appreciated.

Very truly yours,

M. F. Clay

M. F. Clay
Industrial Hygiene
Health & Hygiene Sub-Section
Large Jet Engine Department

MFC/mes

MEDICINE, HEALTH & SAFETY 3-4 (Waste Disp Info)

A 8336

AUG 22 1960

GENERAL ELECTRIC
COMPANY

CINCINNATI 15, OHIO . . . . TELEPHONE POplar 1-4100

FLIGHT
PROPULSION
DIVISION

August 1, 1960

U.S. Atomic Energy Commission
Oak Ridge
Tennessee

Reference: Radioactive Waste Materials
(Magnesium Thorium)

Gentlemen:

We are in search of a satisfactory method for the disposition of Magnesium-Thorium shavings, chips and dust, containing not more than 4% Thorium content, which may be contaminated with oil or other liquids.

At the present time we have on hand 100 - 55 gal. drums which is the amount we have generated over a six (6) month period. These drums are open edge type with latch lids.

We would like to obtain a quotation from you for the removal and disposal of this material from our Evendale Plant located in Cincinnati, Ohio. If you cannot help us direct, we would appreciate any suggestions you may have. If you can help us, will you kindly let us know what your charge would be for the removal and disposal of this material.

Please let us know whether you possess an AC source material license, which we understand is necessary to permit you to receive title to and possession of this Magnesium-Thorium alloy, in the percentage indicated above.

An early reply would be appreciated.

Very truly yours,

GENERAL ELECTRIC COMPANY

J.N. Stimac

J.N. Stimac
Purchasing Agent
PED-Facilities Purchasing
Building 800, Ext. 3470

mp

A-7677

MEDICINE HEALTH & SAFETY-3-4 (Waste Disp - misc)

ORB:AAS

Oak Ridge, Tennessee
July 22, 1960

Mr. H. F. Clay
Industrial Hygienist
Health and Hygiene Sub-Section
Large Jet Engine Department
General Electric Company
Cincinnati 15, Ohio

Subject: REQUEST FOR INFORMATION REGARDING WASTE DISPOSAL SERVICE

Dear Mr. Clay:

Reference is made to your letter dated June 30, 1960, requesting details concerning the waste disposal services offered by the AEC at Oak Ridge and Idaho. This service is offered at a cost of $0.70 per cubic foot with a minimum charge of $21.00 for 30 cubic feet or less. The 4% thorium-magnesium alloy waste which you wish to dispose of would be acceptable, thorium being a source material. However, the levels of activity involved are so low and the quantities of which you wish to dispose are so large that we are considering handling waste in this category in a somewhat different fashion from the waste we normally receive. Your request is therefore being considered for special handling along with other requests we have received. We are certain that an acceptable disposal method will be made available.

In summary, the wastes you mentioned are acceptable for disposal, however, we are in the process of considering special handling for this type of waste. As soon as the question of special arrangements for such waste has been resolved we will notify you concerning the details.

Very truly yours,

ORIGINAL SIGNED BY
A. A. SCHOEN

Arthur Schoen
Health Physicist
Biology Branch
Research and Development Division

Q 4995

cc: H. Lenneman, HQ

OFFICE ▶	Biology Br.					
SURNAME ▶	Schoen:rd					
DATE ▶	7/22/60					

MEDICINE, HEALTH & SAFETY 3-4 (Waste Disp.)

(Rev. 9-53) U. S. GOVERNMENT PRINTING OFFICE 16—62761-3

GENERAL ELECTRIC
COMPANY

FLIGHT PROPULSION DIVISION

CINCINNATI 15, OHIO

TELEPHONE POPLAR 1-4100

June 30, 1960

Manager of Operations
U. S. Atomic Energy Commission
P. O. Box E
Oak Ridge, Tennessee

Reference: AEC Release No. C-85, titled, "AEC Designates Oak Ridge and Idaho Falls as Interim Land Burial Sites For Solid, Packaged Radioactive Wastes."

Dear Sir:

We are writing to request further details concerning the disposal services referenced in the AEC Release No. C-85, dated May 9, 1960. We desire to know whether or not we are eligible to dispose of our radioactive wastes at your site under the terms mentioned in the release.

Our waste consists primarily of shavings, chips and dusts from the machining of jet engine components made of a thorium-magnesium alloy which contains not more than 4% thorium. This waste material is packaged in 55-gallon, metal drums and contains no oils or other liquids. Under our current rate of use, we are generating approximately 100 drums per 6 month period. Also included in our waste material would be certain unusable jet engine components made of the thorium-magnesium alloy.

Our company has been granted Source Material License C-3193, which permits us to receive possession of and title to thorium-magnesium alloy containing not more than 4% thorium.

Very truly yours,

M. F. Clay
Industrial Hygienist
Health & Hygiene Sub-Section
Large Jet Engine Department

MFC/mes

UNITED STATES
ATOMIC ENERGY COMMISSION

IN REPLY REFER TO:
ORB:JAL

Oak Ridge, Tennessee
September 16, 1960

Dr. Robert H. Rohrer
Emory University
Atlanta 22, Georgia

Subject: OAK RIDGE BURIAL GROUND

Dear Sir:

Reference is made to your recent correspondence requesting information with regard to the use of the AEC burial ground in Oak Ridge.

Your inquiry has been referred to Mr. F. N. Case, of the Oak Ridge National Laboratory, who will supply you with the information you have requested.

Please do not hesitate to write if we can be of further assistance in this regard.

Very truly yours,

Original signed by
C. S. Shoup

C. S. Shoup
Chief, Biology Branch
Research and Development Division

CC: F. N. Case, UCNC, w/encl.

0 6452

0 6452

MEDICINE HEALTH & SAFETY 3-4 (Waste Disp Misc)

MEDICINE HEALTH & SAFETY (Waste Disp Misc)

EMORY UNIVERSITY
ATLANTA 22 GEORGIA
SCHOOL OF MEDICINE
DEPARTMENT OF RADIOLOGY

September 13, 1960

Manager of Operations
U. S. Atomic Energy Commission
P. O. Box E
Oak Ridge, Tennessee

SEP 15 1960

Dear Sir:

I should like detailed information regarding the radioactive waste disposal program available to AEC licensees. We anticipate having 5 to 15 cubic feet per month of waste including animal carcasses, paper, glassware, and metallic objects contaminated with gamma and beta emitters at maximum levels of about 20 millicuries. Instructions for packaging, estimates of costs and friendly words of advice will be appreciated.

Very truly yours,

Robert H. Rohrer, Ph.D.
Radiation Safety Officer
Emory University

RHR:am

RECEIVED
SEP 15 1960
A 9226

Waste Disp

UNITED STATES
ATOMIC ENERGY COMMISSION

Oak Ridge, Tennessee
September 20, 1960

IN REPLY REFER TO
ORB:JAL

F. P. Best
Purchasing Agent
Linde Company
Division of Union Carbide Corporation
61 East Park Drive, P. O. Box 44
Tonawanda, New York

Subject: OAK RIDGE BURIAL GROUND

Dear Sir:

Reference is made to your recent correspondence requesting information with regard to the use of the AEC burial ground in Oak Ridge.

Your inquiry has been referred to Mr. F. N. Case, of the Oak Ridge National Laboratory, who will supply you with the information you have requested.

Please do not hesitate to write if we can be of further assistance in this regard.

Very truly yours,

C. S. Shoup
Chief, Biology Branch
Research and Development Division

CC: F. N. Case, UCNC, w/encl.

MEDICINE, HEALTH & SAFETY 3-4 (Waste Disp. misc

0 6523

0 6523

A 9358

MEDICINE, HEALTH & SAFETY 3-4 (waste dis

UNION CARBIDE

LINDE COMPANY

DIVISION OF UNION CARBIDE CORPORATION

61 EAST PARK DRIVE, P. O. BOX 44, TONAWANDA, NEW YORK

TONAWANDA
LABORATORIES

September 15, 1960

Manager of Operations
U. S. Atomic Energy Commission
P. O. Box E
Oak Ridge, Tennessee

Gentlemen:

Please advise the price for disposing of one only 55 gallon drum containing dilute solid radioactive wastes. The wastes are ca 0.1 mc Co^{60} and 1 mc C^{14} held under License No. 31-308-9.

May we also have shipping instructions and any other data necessary for the proper disposition of this material.

Very truly yours,

LINDE COMPANY

F. P. Best

Purchasing Agent

F.P.Best/lw

SEP 19 1960

MEDICINE HEALTH & SAFETY 3-4 (waste dump)

A 9256

UNITED STATES
ATOMIC ENERGY COMMISSION

IN REPLY REFER TO
SYMBOL ORB:JAL

Oak Ridge, Tennessee
September 13, 1960

Mr. T. F. Briody
Western Electric Company
Allentown, Pennsylvania

Subject: OAK RIDGE BURIAL GROUND
Subject: RADIUM DISPOSAL

Dear Mr. Briody:

Reference is made to your letter dated August 3, 1960, concerning the disposal of radium contaminated wastes.

At present the AEC does not have authority to accept radium contaminated wastes for burial in AEC regional burial grounds. The question of radium disposal is now under consideration by our AEC Headquarters.

It is anticipated that we will be able to suggest some method of disposal to you within a month or two.

Very truly yours,

ORIGINAL SIGNED BY
J. A. LENHARD
C. S. Shoup
Chief, Biology Branch
Research and Development Division

cc: E. J. Witkowski, UNCN, w/encl.

cc: W. L. Lennemann, HQ

0 6261

MEDICINE, HEALTH & SAFET

OFFICE ▶	Bio. Br.					
SURNAME ▶	Lenhard:def					
DATE ▶	9/13/60					

Form AEC-318 (Rev. 9-53)

ORS:JAL

Oak Ridge, Tennessee
September 29, 1960

Mr. T. F. Briody
Western Electric Company
555 Union Blvd.
Allentown, Pennsylvania

Subject: RADIUM DISPOSAL

Dear Mr. Briody:

Reference is made to my letter to you dated September 13, 1960, supplying you with an interim reply to your request for radium disposal at the Oak Ridge interim burial ground.

It has been determined that the Atomic Energy Commission's responsibility and authority does not extend to the acceptance of radium-contaminated wastes for burial at the AEC interim burial sites.

We are enclosing a partial list of commercial firms who are licensed to dispose of radioactive materials at sea. Some of these organizations may be helpful to you in the handling of your problem.

If you desire further assistance in this regard, we suggest that you contact your state health authorities who are in a position to contact the U. S. Public Health Service for assistance in such matters.

We trust that the above information will be helpful to you.

Very truly yours,

Original signed by
C. S. Shoup

C. S. Shoup
Chief, Biology Branch
Research and Development Division

1960 SEP 30 PM 1:28

Enclosure:
List

MEDICINE, HEALTH & SAFETY 3-4 (W. Disp. misc)

CC: F. N. Case, ORNL

OFFICE ▶	Biology Br.					
SURNAME ▶	Lenhard:rd					
DATE ▶	9/28/60					

U.S. GOVERNMENT PRINTING OFFICE 16—02701-0
Form AEC-318 (Rev. 9-53)

UNITED STATES
ATOMIC ENERGY COMMISSION

IN REPLY REFER TO:
ORB:JAL

Oak Ridge, Tennessee
August 8, 1960

Mr. T. F. Briody
Western Electric Company
555 Union Blvd.
Allentown, Pennsylvania

Subject: OAK RIDGE BURIAL GROUND

Dear Sir:

Reference is made to your recent correspondence requesting information with regard to the use of the AEC burial ground in Oak Ridge.

Your inquiry has been referred to Mr. E. J. Withowski of the Oak Ridge National Laboratory, who will supply you with the information you have requested.

Please do not hesitate to write if we cand be of further assistance in this regard.

Very truly yours,

Original signed by
C. S. Shoup

C. S. Shoup
Chief, Biology Branch
Research and Development Division

OK CC: E. J. Witkowski, UNCN, w/encl.

MEDICINE HEALTH & SAFETY 3-4 (W. Disp. Misc)

Western Electric Company
INCORPORATED
ALLENTOWN WORKS
555 UNION BLVD. ALLENTOWN, PA.
HEMLOCK 3-7581

August 3, 1960

MANAGER OF OPERATIONS
U. S. Atomic Energy Commission
P. O. Box E
Oak Ridge, Tennessee

Dear Sir:

Re: Atomic Energy Commission Release No. C-85

I am interested in additional information concerning the disposal service available to AEC licensees as described in AEC release No. C-85.

In our manufacturing operations radioactive scrap is generated by crushing defective electron tubes. The scrap consists of cold cathode electron tubes, which are radioactive because the glass envelope has been spotted with radium bromide or filled with krypton 85 gas. The tubes are crushed to reduce their size and this results in a mixture of particles of glass, bakelite, basing cement, and distorted metallic shapes.

At present our scrap generation rate is approximately 325 cubic feet per year. A 30 gallon drum of crushed tubes has an average radioactivity level of 10 milli roentgens per hour at a distance of 1 meter.

We are interested in the possibility of disposing of this material in the manner described in the AEC release No. C-85. Any information concerning this request would be appreciated.

Sincerely yours,

T. F. Briody

T. F. BRIODY
Metallurgical Engineering

JGH:4210:SAB

AUG 5 - 1960

A 780

MEDICINE HEALTH & SAFETY

UNITED STATES
ATOMIC ENERGY COMMISSION

IN REPLY REFER TO:
ORB:JAL

Oak Ridge, Tennessee
October 3, 1960

Mr. John G. Feldes
Power Reactor Development Co.
1911 First Street
Detroit 26, Michigan

Subject: OAK RIDGE BURIAL GROUND

Dear Sir:

Reference is made to your recent correspondence requesting information with regard to the use of the AEC burial ground in Oak Ridge.

Your inquiry has been referred to Mr. F. N. Case, of the Oak Ridge National Laboratory, who will supply you with the information you have requested.

Please do not hesitate to write if we can be of further assistance in this regard.

Very truly yours,

C. S. Shoup
Chief, Biology Branch
Research and Development Division

CC: F. N. Case, UCNC, w/encl.

Q 6829

MEDICINE, HEALTH & SAFETY 3-4 (Waste Disp misc

File - Yellow

MEDICINE, HEALTH & SAFETY

CC: Orwhiddon

1 9/10

POWER REACTOR DEVELOPMENT COMPANY
A NON-PROFIT CORPORATION
1911 FIRST STREET
DETROIT 26, MICHIGAN

WOODWARD 1-4838

September 27, 1960

Manager of Operations
U. S. Atomic Energy Commission
P. O. Box E
Oak Ridge, Tennessee

Dear Sir:

Please furnish us with the details of the disposal service available to AEC licensees as outlined in AEC release No. C-85 and in Notice to AEC Licensees from Mr. H. L. Price, dated May 23, 1960.

Our estimate of the volumes and levels of radioactivity for these wastes, which will result from the operation of the Enrico Fermi Atomic Power Plant at Lagoona Beach, Michigan, is as follows:

Item	Amount	Level of Radioactivity
24" x 24" x 12" absolute filter	4 per month	microcurie to millicurie range
24" x 24" x 2" pre-filter	4 per month	microcurie to millicurie range
Miscellaneous items e.g. rags, paper, gloves, etc.	25 cubic feet per month	microcurie to millicurie range
Steel ion exchange tanks (diameter 14", length 40") containing dewatered resin	No estimate available at present time	microcurie to curie range

Very truly yours,

John G. Feldes
Health Physics Supervisor

SEP 30 1960

MEDICINE, HEALTH & SAFETY

JGF:K
cc: OLWhiddon

UNITED STATES
ATOMIC ENERGY COMMISSION

IN REPLY REFER TO:
ORB:JAL

Oak Ridge, Tennessee
November 8, 1960

Mr. Edward O'Neil
D. H. Makepeace Division
Pine & Dunham Streets
Attleboro, Mass.

Subject: OAK RIDGE BURIAL GROUND

Dear Sir:

Reference is made to your recent correspondence requesting information with regard to the use of the AEC burial ground in Oak Ridge.

Your inquiry has been referred to Mr. F. N. Case, of the Oak Ridge National Laboratory, who will supply you with the information you have requested.

Please do not hesitate to write if we can be of further assistance in this regard.

Very truly yours,

ORIGINAL SIGNED BY
A. A. SCHOEN

C. S. Shoup
Chief, Biology Branch
Research and Development Division

CC: F. N. Case, UCNC, w/encl.

9 7681

File

MEDICINE, HEALTH & SAFETY 3-4
(W. Dep. misc.)

NOV 7 1960
A11001

ENGELHARD INDUSTRIES, INC.

D. E. MAKEPEACE DIVISION
PINE & DUNHAM STREETS
ATTLEBORO, MASS.
ATTLEBORO 1-0090

November 3, 1960

Manager of Operations
U. S. Atomic Energy Commission
P. O. Box E
Oak Ridge, Tennessee

Gentlemen:

We are in receipt of a release from your office with reference to interim land burial sites for the disposal of packaged radioactive wastes generated by A E C licensees.

We have on hand approximately fifty - 55 gallon drums of low assay ashes, solid melt scrap, filters, pickle solutions, etc. and would like to know the procedure we should follow in shipping the above to Oak Ridge:

1. The type of shipping container permissable.

2. The advance notice required.

3. The method of payment.

Any information that you can supply us will be appreciated.

Very truly yours,

D. E. MAKEPEACE DIVISION

Edward O'Neil

Edward O'Neil

EON:lp

MEDICINE, HEALTH & SAFETY 3-4 (W.T.

NOV 7 196

A1/001

UNITED STATES
ATOMIC ENERGY COMMISSION

IN REPLY REFER TO:
ORB:JAL

Oak Ridge, Tennessee
November 2, 1960

Mrs. V. G. Goins
Veterans Administration Hospital
University & Woodland Avenues
Philadelphia 4, Pennsylvania

Subject: OAK RIDGE BURIAL GROUND

Dear Sir:

Reference is made to your recent correspondence requesting information with regard to the use of the AEC burial ground in Oak Ridge.

Your inquiry has been referred to Mr. F. N. Case, of the Oak Ridge National Laboratory, who will supply you with the information you have requested.

Please do not hesitate to write if we can be of further assistance in this regard.

Very truly yours,

ORIGINAL SIGNED BY
A. A. SCHOEN

C. S. Shoup
Chief, Biology Branch
Research and Development Division

CC: F. N. Case, UCNC, w/encl.

MEDICINE, HEALTH & SAFETY 3-4 (A. Drys ... mice)

0 7542

... unknown, service or serial number should be given.

VETERANS ADMINISTRATION
HOSPITAL
UNIVERSITY AND WOODLAND AVENUES
PHILADELPHIA 4, PENNSYLVANIA

October 27, 1960

YOUR FILE REFERENCE:

IN REPLY REFER TO: 5228/172

Manager of Disposable Materials
Manager of Operations
U. S. Atomic Energy Commission
P. O. Box E
Oak Ridge Laboratories
Oak Ridge, Tennessee

Genelemen:

We are interested in receiving further information for disposing of some C-14 waste material, perhaps 50-75 mc of C-14 in the form of organic compounds in filter paper, corks, rubber stoppers, etc.

Could you let us know how we could ship this material to you for disposal, how much it would cost and what would be the procedures involved.

Thank you very much for this information.

Very truly yours,

(Mrs.) V. G. Goins
Secretary to Director, Research and Development
Radioisotope Service

MEDICINE, HEALTH & SAFETY

10800

An inquiry by or concerning an ex-service man or woman should, if possible, give veteran's name and file number, whether C, XC, K, N, V, H, RH, RS, or loan number. If such number is unknown, service or serial number should be given.

UNITED STATES
ATOMIC ENERGY COMMISSION
HARTFORD AIRCRAFT REACTORS AREA OFFICE
P. O. BOX 1102
MIDDLETOWN, CONNECTICUT

November 1, 1960

Mr. F. N. Case
Oak Ridge National Laboratory
P. O. Box T
Oak Ridge, Tennessee

Subject: REQUIREMENT OF BURIAL GROUND FOR UNCLASSIFIED SOLID RADIOACTIVE WASTES

Dear Mr. Case:

Pratt & Whitney Aircraft, CANEL, under AEC Contract No. AT(11-1)-229, requires the services of a facility whose burial ground is capable of handling their large concrete block, high-level, radioactive waste containers. Specifications and sketches of the large 5' x 5' x 6' blocks as well as two other standard P&WA disposal containers used for lower-level wastes are included for your review.

Although P&WA does not presently have a large requirement for disposal of the high-level containers, future requirements could amount to forty or fifty containers per year. In addition to the high-level containers, four hundred to five hundred drums of low-level waste is anticipated.

We would appreciate information regarding your ability to accept the high-level containers and the cost for burial if it should be other than the published rate of $.70 per cubic foot.

Very truly yours,

Paul Baker, Jr.
Chief, Technical Branch

Enclosures:
Sketch No. FSK-11839
" " FSK-11840
" " FSK-11841

cc: Mr. Arthur A. Schoen, USAEC-OROO, w/1 each encl.

MEDICINE, HEALTH & SAFETY
NOV 3 1960

DIVISION OF UNITED AIRCRAFT CORPORATION
EAST HARTFORD, CONN.

CORNERS TO HAVE FILLETS-.005-.020 RAD

FSK-11839

PRINTED IN THE UNITED STATES OF AMERICA

DO NOT SCALE - WORK TO DIMENSIONS GIVEN

FSK-11839

CHANGE NO.	DES.	ALTERATION	CHANGE BY	CHECK'D BY

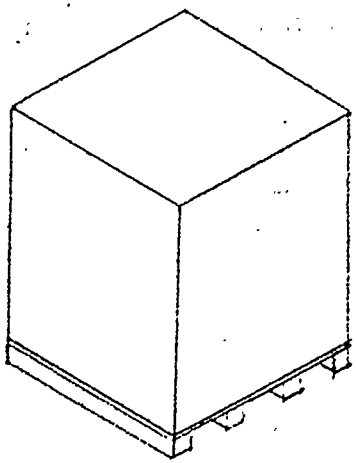
Purpose:

Storage and disposal of solid radioactive waste requiring shielding. Radiation less than 200 mr/hr at surface of block and less than 10 mrhM

Outside Dimensions	5 x 5 x 6 ft.
Volume	150 ft^3, 5.5 cu yd
Cavity dimensions	30 x 30 x 48 in.
Volume	25 ft^3
Weight empty (140 lb/ft^3)	17,500 lb, 8.75 tons
Full	21,000 lb, 10.5 tons
Shielding thickness for 300 curies max.	15 in. on sides 12 in. on top and bottom

Proposed Small Size Coffin

Outside dimensions	4 x 4 x 5 ft.
Volume	80 ft^3, 2.95 cu yd
Cavity dimensions	24 x 24 x 36 in.
Volume	12 ft^3
Weight empty	9,520 lb, 4.76 tons
Full	11,200 lb, 5.6 tons
Shielding thickness for 300 curies maximum	12 in. on all sides



Class A
D. Macfarlane
Ext. 3131

NOTICE TO ALL PERSONS RECEIVING THIS DRAWING

THIS DRAWING IS ONLY CONDITIONALLY ISSUED, AND NEITHER RECEIPT NOR POSSESSION THEREOF CONFERS OR TRANSFERS ANY RIGHT IN, OR LICENSE TO USE, THE SUBJECT MATTER OF THE DRAWING OR ANY DESIGN OR TECHNICAL INFORMATION SHOWN THEREON, NOR ANY RIGHT TO REPRODUCE THIS DRAWING OR ANY PART THEREOF. EXCEPT FOR MANUFACTURE BY VENDORS FOR UNITED AIRCRAFT CORPORATION, AND FOR MANUFACTURE UNDER THE CORPORATION'S WRITTEN LICENSE, NO RIGHT TO REPRODUCE THIS DRAWING IS GRANTED UNLESS BY WRITTEN AGREEMENT WITH OR WRITTEN PERMISSION FROM THE CORPORATION. NOTWITHSTANDING THE FOREGOING, NOTHING CONTAINED IN THIS NOTICE SHALL PREVENT THIS DRAWING FROM BEING REPRODUCED OR USED TO THE EXTENT CONTEMPLATED BY ANY APPLICABLE CONTRACT BETWEEN UNITED AIRCRAFT CORPORATION AND THE GOVERNMENT OF THE UNITED STATES.

NAME	DM				10.5 T
DATE	7-13-66				APPROX. WT.
BY	DTR	CKR	TCR	CKR	

PRATT & WHITNEY AIRCRAFT
DIVISION OF UNITED AIRCRAFT CORPORATION
ST. HARTFORD, CONN.

UNLESS OTHERWISE SPECIFIED
— THD PER SPEC PWA 355
BREAK SHARP EDGES .003-.015
CORNERS TO HAVE FILLETS .005-.020 RAD

APPROVED

MATERIAL: Concrete

PHYS. OR PROC. SPEC.

COFFIN - DISPOSABLE

FSK-11839

SHEET NO. | NO. OF SHEETS

UNITED STATES
ATOMIC ENERGY COMMISSION

IN REPLY REFER TO:
ORB:JAL

Oak Ridge, Tennessee
October 27, 1960

Mr. G. M. Cox
The Detroit Edison Co.
2000 Second Avenue
Detroit 26, Michigan

Subject: OAK RIDGE BURIAL GROUND

Dear Sir:

Reference is made to your recent correspondence requesting information with regard to the use of the AEC burial ground in Oak Ridge.

Your inquiry has been referred to Mr. F. N. Case, of the Oak Ridge National Laboratory, who will supply you with the information you have requested.

Please do not hesitate to write if we can be of further assistance in this regard.

Very truly yours,

Original signed by
C. S. Shoup

C. S. Shoup
Chief, Biology Branch
Research and Development Division

CC: F. N. Case, UCNC, w/encl.

MEDICINE, HEALTH & SAFET-3-4
W. Disp
misc

0 7430

OCT 13 1960

TELEPHONE WOODWARD 2-2100

THE DETROIT EDISON COMPANY
2000 SECOND AVENUE
DETROIT 26, MICHIGAN

C. F. OGDEN
PRESIDENT

M. PEASE
MANAGER OF PURCHASES
AND
REAL ESTATE

October 11, 1960

U. S. Atomic Energy Commission
Oak Ridge
Tennessee

Gentlemen:

Would you please advise our cost and the procedure for disposal of 5, 1 gallon cans of grinding sludge. This grinding sludge weighs approximately 38 pounds total with less than 1 pound being U-238.

Kindly direct your reply to the attention of our Mr. J. E. McCarthy as soon as possible.

Very truly yours,

G. M. Cox,
Supervisor of Materials & Supplies Buying

JEM/db

MEDICINE HEALTH & SAFETY 3-4 (W.D.

Misc.

A10225

OCT 13 1960

UNITED STATES
ATOMIC ENERGY COMMISSION

IN REPLY REFER TO:
ORB:JAL

Oak Ridge, Tennessee
October 18, 1960

Mr. A. W. Meyer
Coe College
Cedar Rapids, Iowa

Subject: OAK RIDGE BURIAL GROUND

Dear Sir:

Reference is made to your recent correspondence requesting information with regard to the use of the AEC burial ground in Oak Ridge.

Your inquiry has been referred to Mr. F. N. Case, of the Oak Ridge National Laboratory, who will supply you with the information you have requested.

Please do not hesitate to write if we can be of further assistance in this regard.

Very truly yours,

Original signed by
C. S. Shoup

C. S. Shoup
Chief, Biology Branch
Research and Development Division

CC: F. N. Case, UCNC, w/encl.

Q 720

file

MEDICINE, HEALTH & SAFET

COE COLLEGE

CEDAR RAPIDS IOWA

Physics Department
October 12, 1960

Manager of Operations
P. O. Box E
Oak Ridge, Tennessee

Dear Sir:

This department has had on hand for some time an abandoned radioactive source which we are anxious to dispose of. We do not know what the source is. Mr. William Schultz, an inspector for the A. E. C., has told us that it can be shipped to Oak Ridge if packed in a wooden container about 20 inches in each dimension. The source itself is in a cylindrical lead container about 3 inches in diameter and 6 inches tall.

We hesitate to attempt to ship this source until we have been advised by you that you will accept it, and have been assured that the pertinent shipping regulations allow us to ship as Mr. Schultz has suggested.

Please advise us as to whether you will accept such a shipment, and how we can proceed to make sure we comply with shipping regulations.

Very truly yours,

A. W. Meyer

A. W. Meyer

MEDICAL HEALTH & SAFETY

UNITED STATES
ATOMIC ENERGY COMMISSION

IN REPLY REFER TO
ORB:JAL

Oak Ridge, Tennessee
October 14, 1960

Mr. Raymond N. McCandless
The Johns Hopkins Medical Institutions
601 North Broadway
Baltimore 5, Maryland

Subject: OAK RIDGE BURIAL GROUND

Dear Sir:

Reference is made to your recent correspondence requesting information with regard to the use of the AEC burial ground in Oak Ridge.

Your inquiry has been referred to Mr. F. N. Case, of the Oak Ridge National Laboratory, who will supply you with the information you have requested.

Please do not hesitate to write if we can be of further assistance in this regard.

Very truly yours,

ORIGINAL SIGNED BY
A. A. SCHOEN

C. S. Shoup
Chief, Biology Branch
Research and Development Division

CC: F. N. Case, UCNC, w/encl.

MEDICINE, HEALTH & SAFETY

THE JOHNS HOPKINS MEDICAL INSTITUTIONS
THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE
THE JOHNS HOPKINS UNIVERSITY SCHOOL OF HYGIENE AND PUBLIC HEALTH
THE JOHNS HOPKINS HOSPITAL

OFFICE OF THE VICE PRESIDENT
601 NORTH BROADWAY
BALTIMORE 5, MARYLAND

CENTRAL RADIATION LABORATORY
RADIATION CONTROL UNIT
RADIATION SAFETY OFFICER
TELEPHONE: ORLEANS 5-5600
EXT. 7-17
ADDRESS: RADIOLOGY BUILDING
ROOM 5
THE JOHNS HOPKINS HOSPITAL

OCT. 7, 1960

MANAGER OF OPERATIONS
U.S. ATOMIC ENERGY COMMISSION
P.O. BOX E
OAK RIDGE, TENNESSEE

DEAR SIR:

WILL YOU PLEASE SEND ME DETAILS CONCERNING BURIAL OF SOLID, PACKAGED, RADIOACTIVE WASTES AS OUTLINED IN RELEASE # C-85.

THE MATERIAL IN QUESTION CONSISTS PRIMARILY OF CONTAMINATED LABORATORY GLASSWARE AND PARAPHERNALIA. ALL MATERIAL HAS BEEN ENCASED IN PLASTER OF PARIS AND WILL BE SHIPPED IN A 55 GALLON METAL DRUM.

ANY ASSISTANCE WHICH YOU CAN GIVE IN THE DISPOSAL OF THIS CONTAMINATED MATERIAL WILL BE GREATLY APPRECIATED.

SINCERELY,

Raymond N. McCandless

RAYMOND N. McCANDLESS
RADIATION SAFETY OFFICER
JOHNS HOPKINS MEDICAL INSTITUTIONS

MEDICINE, HEALTH & SAFETY

OCT 13 1960

ORB:JAL

Oak Ridge, Tennessee
October 13, 1960

Mr. Robert J. Shalek
M. D. Anderson Hospital and Tumor Institute
Houston 25, Texas

Subject: RADIOACTIVE WASTE DISPOSAL

Dear Mr. Shalek:

Reference is made to your letter dated September 29, 1960, requesting information with regard to the use of the Oak Ridge burial ground.

It has been determined that the Atomic Energy Commission's responsibility and authority does not extend to the acceptance of radium contaminated wastes for burial at the AEC interium burial sites.

We are enclosing a partial list of commercial firms who are licensed to dispose of radioactive materials at sea. Some of these organizations may be of assistance to you in the handling of your problem.

If you desire further assistance in this regard, we suggest that you contact your state health authorities who are in a position to contact the U. S. Public Health Service for assistance in such matters.

Your inquiry has been referred to Mr. F. N. Case of the Oak Ridge National Laboratory, who will supply you with the information you need for disposal of radioactive materials exclusive of radium.

Please do not hesitate to write if we can be of further assistance in this regard.

Very truly yours,

Original signed by
C. S. Shoup

C. S. Shoup
Chief, Biology Branch
Research and Development Division

Q 7138

Enclosure:
List.

MEDICINE, HEALTH & SAFETY

cc: F. N. Case, UCNC, w/ltr.

OFFICE ▶		Bio. Br.			
SURNAME ▶		Lenhard			
DATE ▶		10/13/60			

Form AEC-318 (Rev. 9-53) U. S. GOVERNMENT PRINTING OFFICE : 16—62761-3

A-3871

THE UNIVERSITY OF TEXAS
M. D. ANDERSON HOSPITAL
AND TUMOR INSTITUTE

TEXAS MEDICAL CENTER
HOUSTON 25

Physics Department

September 29, 1960

Manager of Operations
U. S. Atomic Energy Commission
P. O. Box E
Oak Ridge, Tennessee

Dear Sir:

We are in the process of disposing of a number of radioactive sources which are no longer in use. These include cesium-137 needles, cobalt-60 needles, and also some obsolete radium needles. In addition to these we have a large cobalt-60 source of approximately 500 millicuries that we should like to send away.

Would you be kind enough to inform us which of these items can be accepted at the Oak Ridge site for land burial?

Yours sincerely,

Robert J. Shalek
Robert J. Shalek
Associate Physicist

RJS/jl

MEDICINE HEALTH & SAFETY

A-9877

OCT 4 - 1960

C. L. Karl, Area Manager
Fernald Area

S. R. Sapirie, Manager
Oak Ridge Operations

CONTAMINATED OIL

Reference is made to your memorandum dated November 15, 1960, symbol G:WTW, subject as above, suggesting that the 180,000 gallons of contaminated oil stored at Fernald be shipped to Oak Ridge for burial along with the thorium residues.

The Oak Ridge interim regional burial ground was established for disposal of packaged solid radioactive wastes. The burial ground is designed and operated in a manner such that the buried waste is suspended above the water table to avoid contact between the wastes and circulating ground waters. The introduction of liquids into the burial pits would therefore compromise this operation by permitting communication between the burial pits (and whatever radioactive materials are buried therein) and the ground water table. It is for this reason that liquid wastes are categorically unacceptable for burial at the Oak Ridge Burial site. In addition, the liquid in this case is oil and poses an added problem in that very small amounts of oil in drinking water would taint the flavor, causing other public health problems even though radioactive contamination might not be of concern.

For these reasons shipment of this oil to Oak Ridge for disposal is unacceptable. It is suggested, therefore, that the previously proposed disposal methods (i.e. incineration or commercial disposal as a dust palliative or for road oil) which have been under consideration by FAO and NLCO for some time, be pursued more actively so that the suitability of these methods can be evaluated as soon as possible.

ORIGINAL SIGNED BY
E. A. WENDE
S. R. Sapirie

CC: E. H. Armstrong
J. W. Ruch
E. M. Roth

Q 8063

MEDICINE HEALTH & SAFETY 3-4 (Waste Disp-misc) Dep

OFFICE ▶	Bio. Br.	Res.&Dev.	Feed Mats.		Asst. Mgr. Opr.	Manager
SURNAME ▶	Schoen:ef	Martin	Ruch Dec 5			
DATE ▶	11/25/60	11/25/60	~~11/ /60~~		12/ /60	12/6/60

Form AEC-318 (Rev. 9-53) U. S. GOVERNMENT PRINTING OFFICE 16—62761-3

INFO COPY

STANDARD FORM NO. 64

Office Memorandum · UNITED STATES GOVERNMENT

TO : J. W. Ruch, Director, Feed Materials Division, Oak Ridge Operations

DATE: NOV 15 1960

FROM : C. L. Karl, Area Manager, Fernald Area

SUBJECT: CONTAMINATED OIL

SYMBOL: O:WTW

Reference is made to our TT No. 6038 dated November 10, 1960, concerned with the cubage of residues for disposal at Oak Ridge. We have issued Production Order E-415 to the National Lead Company this date authorizing shipment of thorium residues to ORO. (Copy attached)

There are now on inventory at Fernald approximately 180,000 gallons of contaminated oil which we suggest may be transported to Oak Ridge by tank truck and dumped in the ORO disposal pit along with the thorium residues. The uranium contamination of the oil is approximately 3500 ppm after centrifugation. Approximately 60,000 gallons of oil are available for immediate transfer to the disposal pit.

The following statement is made in the last "Semiannual Fire Protection Survey - September 19-23, 1960", forwarded to us by memorandum S. R. Sapirie to C. L. Karl dated October 18, 1960: "In view of the apparent hazard from uncontrolled burning of the waste oil stored on the Drum Storage Pad, a decision as to an appropriate means of disposing of this oil is urgently needed."

Government-owned tank trailers, if available, should be utilized. We would arrange for a contract hauler. If Government-owned trailers are not available we will arrange for two commercial tankers to be put in continuous service immediately. The remaining oil inventory can be decanted and centrifuged in Plant 8 with existing personnel and equipment at a rate in excess of shipments.

We will appreciate an early reply to our proposal.

C. L. Karl

Enclosure: As stated above

MEDICINE, HEALTH & SAFETY

NOV 17 1960

A11338

INFO COPY

PRODUCTION ORDER

4725

U. S. ATOMIC ENERGY COMMISSION
Oak Ridge Operations Office
Fernald Area

No. E-415
Date NOV 15 1960

TO: NATIONAL LEAD COMPANY OF OHIO

SUBJECT: DISPOSITION OF THORIUM RESIDUES

In accordance with the provisions of Paragraph 1 of Article I of Contract No. AT(30-1)-1156, you are requested to PRODUCE and/or SHIP the materials described below:

DESCRIPTION OF WORK: Please arrange to transport approximately 4500 drums of thorium residues to Oak Ridge for disposal.

SPECIFICATIONS: Residues assaying 7½% thorium or less may be disposed of under this Production Order.

Mr. J. Carvitti is familar with the details of this Production Order.

PRODUCTION RATE:

COMPLETION DATE: April 15, 1961

SPECIAL CONDITIONS:

- Prepare and report accountability removals from inventory on a monthly basis, indicating both the gross weight and net SS content.
- If rail shipment is to be used do not load more than 6 box cars without prior approval of this office.
- Section 22 rate will be requested by our office. Please contact Mr. F. Epp for details.

REFERENCES:

METHOD OF SHIPMENT: Use most economical method.

CONSIGNEE: Details to be furnished by letter.

FOR THE USAEC

Original Signed By
C. L. KARL
Area Manager

C. L. Karl, Area Manager

jaw

NOV 17 196

INFO COPY

A11338

OAK RIDGE NATIONAL LABORATORY
OPERATED BY
UNION CARBIDE NUCLEAR COMPANY
UCC
POST OFFICE BOX X
OAK RIDGE, TENNESSEE

November 28, 1960

Mr. Edwin L. Giebel
Engineering Branch
U. S. Atomic Energy Commission
Post Office Box 188
Cincinnati 39, Ohio

Subject: WASTE DISPOSAL

Dear Mr. Giebel:

We have received the waste shipment data forms describing your proposed 4500 drums of thorium waste. This material will be accepted by ORNL for disposal, and all terms and conditions stated on the waste order forms applicable to National Lead operation will apply.

As stated by phone by Arthur Schoen, AEC, ORO, billing instructions will be provided us at an early date by the AEC, ORO. These instructions should permit setting up an account to collect costs.

Please advise if we can be of further assistance.

Very truly yours,

ORIGINAL SIGNED BY
F. N. CASE
F. N. Case
Isotopes Sales Department
Isotopes Division

FNC:rc

cc: Arthur Schoen

MEDICINE, HEALTH & SAFETY-3-4 (Waste Disp. Misc.)

A11873

NOV 29 1960