FORM AEC-41
(7-57)

UNITED STATES
ATOMIC ENERGY COMMISSION

(1) of

SOURCE MATERIAL LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, and Title 10, Code of Federal Regulations, Chapter 1, Part 40, "Licensing of Source Material," and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, possess and import the source material designated below; to use such material for the purpose(s) and at the place(s) designated below; and to deliver or transfer such material to persons authorized to receive it in accordance with the regulations in said Part. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission, now or hereafter in effect, including Title 10, Code of Federal Regulations, Chapter 1, Part 20, "Standards for Protection Against Radiation," and to any conditions specified below.

Licensee	3. License No.
1. Name: The Pesses Company	STB-1254
2. Address: 29605 Hall Street Solon, Ohio 44139	4. Expiration Date September 30, 1980
	5. Docket No. 40-8406

6. Source Material	7. Maximum quantity of source material which licensee may possess at any one time under this license
Thorium	500 pounds

CONDITIONS

8. Authorized use (Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.)

Sheared plate scrap containing up to 2% thorium oxide for alloy manufacture in accordance with statements, representations, and procedures contained in application dated July 23, 1975 and letters dated August 26, 1975, September 18, 1975, and September 19, 1975.

9. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."

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MATERIALS LICENSE
Supplementary Sheet

License Number: STV-1254

Docket or Reference No: 40-8406

(Continued) CONDITIONS

10. Licensed material shall be used by, or under the supervision of, Dr. Marvin Pesses.

Wherever the words "Atomic Energy Commission" or "Commission" appear in this license, except where the context of their use refers to a fact or event prior to January 19, 1975, they mean the Nuclear Regulatory Commission created by Public Law 93-438 and Executive Order No. 11834.

SEP 23 1975

Docket File

COPY

K&D 9/23/75

For the U. S. Nuclear Regulatory Commission
Original Signed by
KITTY S. DRAGONETTE
Materials Branch
Division of Materials and Fuel Cycle
Facility Licensing
Washington, D. C. 20555

A1

JUL 10 1985

Docket No. 40-08406 License No. STB-1254

Dollar Savings
ATTN: Mr. Robert W. Wilson
President
Washington Centre
32 North Mill Street
P. O. Box 1469
New Castle, Pennsylvania 16103

Dear Mr. Wilson:

Subject: Pesses Company and METCOA Property

This refers to your letter, dated June 6, 1985, which enclosed a copy of the proposal from Chem-Nuclear Systems, Incorporated to clean up the hazardous waste material at the Metcoa plant site in Pulaski, Pennsylvania. Your letter also raised several questions regarding the Pesses Company license, the planned EG&G overflight survey, the procedures for a final site survey and possibility of a tenant moving onto this site while decontamination is in progress. I will attempt to answer each of your questions in this letter.

A. EG&G Overflight Survey

While preliminary photography has been performed at the site, the survey itself has not been started. It is unlikely that this survey will be done within the next year. We will provide you a copy of the results of this survey as soon as one is available. When all radioactive material has been removed, we do plan to have a contractor perform surveys on the ground.

B. Occupancy of Site During Decontamination

We will not object if a tenant or purchaser of the site begins to move onto a portion of the site which is free of radioactive materials. Before this takes places, please inform this office of the details of this occupancy so that we might make any confirmatory surveys which are appropriate to ensure that the occupied area is free of radioactive materials. The tenant or purchaser should not have access to the portion of the site which still contains radioactive materials.

C. Pesses License

1. No bond was required of the Pesses Company by the NRC at the time the license was granted.

A2 8507260170 2pp

2. Copies of the applications and letters referenced in the license, along with copies of related correspondence, are enclosed with this letter.

D. Chem-Nuclear Proposal

I have reviewed the Chem-Nuclear Proposal and have several comments. First, their proposal to dispose of the drums of thorium alloy appears to be technically acceptable. Second, the proposal does not appear to address the radioactive contamination which is onsite but not in drums. Prior to releasing the site for unrestricted use, the NRC would have to be assured that this contamination was removed and was properly sent for disposal. Third, it should be made absolutely clear which party has the responsibility for ensuring that the waste shipment meets all U.S. Department of Transportation Packaging and Shipping requirements. We have seen problems develop in chis area in similar situations.

Please contact me if you have any questions or if I can be of further assistance.

Sincerely,

Original Signed By:
Francis M. Costello

Francis M. Costello, Chief
Nuclear Materials Section A
Nuclear Materials Safety & Safeguards Branch
Division of Radiation Safety & Safeguards

Enclosures:
1. May 23, 1978 letter from Marvin Pesses to Earl Wright, NRC
2. March 16, 1978 letter from Earl Wright, NRC, to Marvin Pesses
3. January 17, 1978 letter from Marvin Pesses to Earl Wright, NRC
4. September 19, 1975 letter from Marvin Pesses to Kitty Dragonette, NRC.
5. September 19, 1975 letter from Kitty Dragonette, NRC, to Marvin Pesses
6. September 18, 1975 letter from Molly Tatel, Pesses Company to Kitty Dragonette, NRC
7. August 26, 1975 letter from Marvin Pesses to Kitty Dragonette, NRC
8. August 15, 1975 letter from Kitty Dragonette, NRC, to Marvin Pesses
9. July 24, 1975 letter from Marvin Pesses to Kitty Dragonette, NRC
10. July 23, 1975 application from the Pesses Company

bcc w/o enclosures:
T. Costello, DRSS
J. Kinneman, DRSS

A2

Regulatory Docket File

RECEIVED

1978 MAY 31 AM 11 56

THE PESSES CO.

MARVIN PESSES
PRESIDENT

U.S. REG. ... SECTION

1978 MAY

U.S. ...
...

NMSS MAIL SECTION

DOCKETED
USNRC
JUN 1 1978
NMSS
MAIL SECTION
DOCKET CLERK

May 23, 1978

Mr. Earl G. Wright
Radio Isotopes
Licensing Branch
Division of Fuel Cycle & Material Safety
United States Nuclear Regulatory Commission
Washington, D. C. 20555

RE: Amendment License STB-1245
Docket #40-8406

Dear Mr. Wright:

First, let me apologize for not replying to your letter of March 16 in a more timely fashion. I am particularly chagrined over this, in view of the fact that I have been pushing you in an attempt to get the amendment approved, since a number of our customers are suffering hardships as a result of our being unable to receive material from them. Unfortunately, we have had a number of personnel changes in our office which resulted in a rather sizable amount of correspondence being misfiled. I can assure you that I am even more anxious now to bring this matter to a conclusion than I was last time we spoke; our suppliers are even more anxious than we are, and it would serve everyone's purposes to expedite this as rapidly as possible. I would be pleased to come to Washington if necessary in order to help move this thing forward; this is in the interest of our customers, ourselves, and our nation's energy conservation program.

We are pleased to reply to the questions you raised in your letter as follows:

1) The thorium containing scrap will be received by us in 55 gallon steel drums. The material will be moved to our melt shop, charged into a high frequency induction furnace along with nickel, and/or silicon, and/or copper, and/or iron and melted under a thin slag cover under an argon atmosphere. The resultant melt is cast into a heavy steel chill mold. This slag is then either broken or sheared for shipment to our customers. Our customers use this material as less than 2% of their charge (dilute it 98%). The thorium content of any slag that results we have found will be less than .02%.

~~8506060176~~ 7pp

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29605 HALL STREET, SOLON, OHIO 44139 TELEPHONE (216) 248-0145 TELEX 985540

2) The maximum amount of source material that we will use at any one time for each phase of the operation would be, as specified above, 1%. The only hazard we can possibly imagine would be in the event we had a lining fail in one of our furnaces and the resultant molten metal would go through the furnace lining. We have a pit underneath our furnace into which this material would drop, chill, be broken up later, and put back into a future melt. We cannot conceive of any real potential radiological hazard to any of our workers or to the public as a result of this.

3) The employees on the furnace when we melt hazardous materials of any kind wear proper safety equipment; the area in which they function operates under a negative pressure from a very good exhaust system. The employees in this case wear monitoring equipment which continuously samples the air at the level of their nostrils. We also have available and use radiation survey meters. These filter samples are analyzed for thorium on our quontometer and are also checked for radiation. The slag from the melting operation, which is essentially an insoluble silicate and is diluted, will be buried in one location and at a minimum depth of 4 ft.; successive burials will be separated by at least 6 ft.; not more than 12 burials will be made in any one year. The total quantity of radioactive material buried at any one location will not exceed 1,000 times the amount specified in Appendix C of Part 20 of Rules and Regulations, i.e., 1,000 microcuries. We have 22 acres at our plant, approximately 75% of which is presently unused. Attached hereto you will find a plot plan showing the area in which burials will be made. One of the types of instrumentation we use is a Victoreen's Model No. 490, Thyac III. Before and after we begin the short runs which involve the use of thoriated metal, a complete plant survey is made. This includes a physical survey of the location of materials and equipment and measurement of levels of radiation or concentration of materials present. We have never had any airborne or liquid releases, nor do we anticipate ever having any. However, the material collected in our dust collector is checked after each run for possible radiation. Our company records will show the location where burials of slag resulting from melting radioactive materials have been made, and a record will be kept of each burial, amount, the time, date, location, et al.

We trust that we have answered all your questions satisfactorily, that our procedures will be acceptable, and that we will hear from you shortly with approval for the amendment to our license.

Thanking you for your cooperation, and looking forward to hearing from you, we are,

Very truly yours,

THE PESSES COMPANY

Dr. Marvin Pesses

A2

MP/tj

Enc. Blueprint

MAR 16 1978

FCRL:EGW
(08429)

Pesses Company
ATTN: Dr. Marvin Pesses
29605 Hall Street
Solon, Ohio 44139

Gentlemen:

This refers to your application dated January 13, 1978, for amendment of License No. STB-1254.

As was pointed out to Dr. Pesses by the undersigned in our telephone conversation of March 10, 1978, the following additional information and/or clarification is needed in order to continue our health and safety review.

1. A more detailed description of the metallurgical and/or reprocessing operations to be performed on the thorium scrap. For example, you should provide a step-by-step description of what is done with the thorium scrap from receipt to transfer to authorized recipients.

2. A description of your assessment of the potential radiological hazards associated with the processes described above. You should specify the maximum amount of source material in use at any one time for each phase of the operation and identify potential radiological hazards to workers and the public. (Consider both routine and emergency situations).

3. A description of your radiation protection program designed to protect personnel against the hazards identified above. You should specify any special equipment, i.e., radiation survey meters, dosimeters, air samples, etc., and the procedures and frequency for conducting radiation surveys. (Please refer to Enclosure 2 for specific guidance).

4. A description of the procedures and equipment for analysis of waste to verify compliance with 20.304 of 10 CFR Part 20.

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OFFICE ▶						
A2 SURNAME ▶						
DATE ▶						

NRC FORM 318 (9-76) NRCM 0240 ☆ U. S. GOVERNMENT PRINTING OFFICE: 1976 — 626-624

5. Verification that your company and official land records will show the location where burials of radioactive waste have been made.

When replying, please furnish the requested information in duplicate and refer to Control No. 08429.

Sincerely,

Earl G. Wright
Radioisotopes Licensing Branch
Division of Fuel Cycle and
Material Safety

Enclosures:
1. 10 CFR Parts 19, 20, 40
2. Source Material Guide
3. Decontamination Guide

OFFICE ▶	FC&L					
SURNAME ▶	EGWright:bjp					
DATE ▶	3/16/78					

AL

THE PESSES CO.

MARVIN PESSES
PRESIDENT

January 17, 1978
(dictated 1/12/78)

Mr. Earl G. Wright
Radio Isotopes, Licensing Branch
United States Nuclear Regulatory Commission
Washington, D.C. 20555

RE: Amendment License ST-1254
Docket No. 40-8406

Dear Mr. Wright:

Thank you for your courteous reception to my recent phone call and for your assistance toward completing our requested amendment for Source Material License.

The changes we request are outlined on the enclosed amendment request license application form as well as on the other attached sheet. We would greatly appreciate your attempting to expedite your examination, since there is a considerable amount of material currently being held in abeyance by Avco Lycoming pending your approval of this amendment. If you need any further explanation, we would appreciate your calling us so that we may expedite your approval. We would be most pleased to come and visit with you if the need arises.

Looking forward to hearing from you at an early date, and remain,

Very truly yours,

THE PESSES CO.

Dr. Marvin Pesses

MP:jr

Enclosures

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08429

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29605 HALL STREET, SOLON, OHIO 44139 TELEPHONE (216) 248-0145 TELEX 985540

THE PESSES CO.

January 17, 1978
(dictated 12/12/78)

APPLICATION FOR SOURCE MATERIAL LICENSE

AMENDMENT TO LICENSE NO. ST-1254

7. Addition - Other source material, such as 2% Thoriated Magnesium alloy scrap will be melted under a slag cover with other metals such as Nickel, Silicon, Copper, Iron, etc. The resultant product will be used as an addition agent of 1% maximum in ductile iron. Eventually, all of the Thoria will be tied up in an insoluble siliceous slag.

9. As described in Item No. 7, some of the materials are received as sheared plate and others as turnings. The turnings are oily and therefore do not generate fine particles. These will be briquetted and then melted; the sheared plate has no fine particles. These are placed into a furnace as 1/10th of a furnace charged with Nickel and Silicon in an induction furnace under a slag cover and then poured into pigs, so there are no airbonre particles as fine particulate. In any case, the Thorium content of the metal is almost nil at this point in time. These pigs are used by iron and steel foundries as 1-2% of their charge. The Thoria content of the resultant slag will be less than 0.2%.

10. Dr. Marvin Pesses will supervise any radiation safety program required. However, it is our opinion that the precautions noted below are sufficient unto themselves, based upon many years of past experience.

11. While Vice President at Mercer Alloys, Greenville, Pennsylvania, we melted similarly, checked for radiation levels, and had no problems in this area. Both the sheared plate and the final pigs are handled with gloves. There are no airborne particles and no ventilation is required for this purpose.

12. (a) The source material is stored in 55 gallon heavy gauge steel drums. There is nothing that an explosion or fire will do to the Nickel source material, nor is there any potential for same. The Magnesium material is limited to 80 lb. drum which limits any possibility of fire. A small amount of sulfur and/or flux is commonly used to prevent Magnesium fire.

(b) and (c) We do not believe any is needed, but would be willing to comply with AEC recommendations.

13. The waste slag will be buried and/or stored on our 22 acres of land in conformity with NRC requirements.

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29605 HALL STREET, SOLON, OHIO 44139 TELEPHONE (216)248-0145 TELEX 985540

REGULATORY FILE CY

THE PESSES CO.

40-8406

MARVIN PESSES
PRESIDENT

September 19, 1975
(dictated 9/18/75)

Ms. Kitty S. Dragonette
Materials Branch
Division of Materials and Fuel Cycle Facility Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: MF:M:KSD
(40-8406)

Dear Ms. Dragonette:

Thank you for your phone call of this date.

This will confirm our conversation during which we advised you that we will accurately sample the first, middle and last heat of each series of melts in which the Thoria containing Nickel will be used. In the event these three tests do not result in identical (within normal analytical deviations) results, we will sample all of the heats. The samples will be analyzed by spectrographic means, the sensitivity of which is greater than 0.005%.

Thank you again for your cooperation.

Very truly yours,

THE PESSES CO.

Dr. Marvin Pesses

MP/jes

8504160180 1p

1289

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29605 HALL STREET, SOLON, OHIO 44139 TELEPHONE (216) 248-0145 TELEX 985540

MF:M:KSD
(40-8406)

SEP 19 1975

Pesses Company
ATTN: Dr. Marvin Pesses, President
29605 Hall Street
Solon, Ohio 44139

Gentlemen:

This refers to your application for a source material license to process scrap plate containing up to 2% thorium and supplemental information submitted by letters dated July 24, 1975, and August 26, 1975. Review of the information indicates that a more complete response to two items of our August 15, 1975 letter are required. This will also confirm our conversation with Ms. Molly Tatel concerning your application when she visited our offices on September 2, 1975.

With respect to Item 2., please submit a more specific description of your quality control program to monitor thorium content of products produced. The methods, frequency, and sensitivities of tests should be specified. The frequency should be related to production runs. The sampling frequencies specified may take into account a decreased frequency of sampling after results from initial melts have established product content. Test detection limits should be indicated. The specific name of analytical firms who will perform the tests is not required; however, specific criteria which you will require of your contractor should be indicated.

With respect to Item 3., please submit a more specific description of your proposed waste disposal methods. From your response, it was not clear whether you intend to bury materials on site under the automatic provisions of Section 20.304 of 10 CFR 20. If you are requesting alternate disposal methods under the provisions of Section 20.302 of 10 CFR 20, please clarify. If burial under the automatic provisions of Section 20.304 is intended, you should describe your arrangements for alpha assay of materials buried. The provisions of this section require determination of the microcuries of alpha activity of material buried. If approval under Section 20.302 is intended, the information outlined in that section should be provided. If you plan interim storage, you should describe the containment and security and your final plans for disposition of stored waste.

~~SP 926 0194~~ 2pp

OFFICE ▶						
SURNAME ▶						
DATE ▶						

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Review of your application for a source material license will continue upon receipt of the above information. Your response should reference Docket No. 40-8406.

Sincerely,

Kitty S. Dragonette
Materials Branch
Division of Materials and Fuel
Cycle Facility Licensing

Enclosure:
10 CFR 20

cc: Ms. Molly Tatel
Robert R. Nathan & Associates
1200 18th Street, N. W.
Washington, D. C. 20036

OFFICE	CRESS:EW 453-709 ps	MF:M					
SURNAME	A2 9/16/75	KDragonette:ehd					
DATE		9/ /75					

RRN A

ROBERT R. NATHAN | ASSOCIATES, INC.

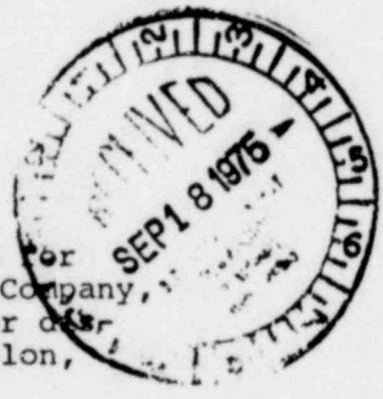
1200 EIGHTEENTH STREET, N.W. WASHINGTON, D.C. 20036
PHONE 202/833-2200 TELEX 248482 CABLE NATECON

40-8406

September 18, 1975

REGULATORY FILE CY

Mrs. Kitty Dragonette
Nuclear Regulatory Commission
Materials Branch
Division of Materials & Fuel
Cycle Facility Licensing
Washington, D.C. 20555

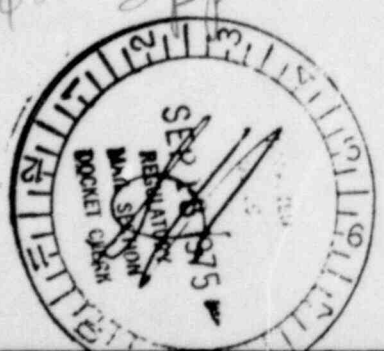


Dear Mrs. Dragonette:

This is in further reference to your request for additional information regarding the Pesses Company, license application regarding their plans for disposal of waste material at their plant in Solon, Ohio.

Mr. Pesses advises that the company plans to dispose of the material under the Automatic Plan of Regulation 20, Section 20.304. He would obtain the required instrumentation in order to accurately measure the milicures or microcures, or hire a physicist to do this, as his company would only be utilizing the material on an intermittent basis. After having measured the amount of radiation, he would then accurately plot the burial locations and have this information permanently recorded in company files. As mentioned previously, there is not much of this material available. The Pesses Company would plan to utilize it in its manufacturing process at intervals rather than on a continuous basis. This would allow them to more easily control the resultant material for disposal. Their plant in Solon, Ohio is within a stone's throw of that of the Victoreen Instrument Company with whose personnel they have already discussed the matter of measurement. The Victoreen Company has assured Mr. Pesses that they have competent people who would be available to assist them.

~~03A126 001~~ 2PP



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RRNA

Pesses is currently using a Victoreen Model 7400, but have available to them a Model 440. The Victoreen Model 7400 has a 0 to 25 scale, while the Model 440 has a 0 to 1 scale, which is one of the most sensitive instruments commercially available, and the one that would be used to police the slag.

We trust that the above is the information that is needed to process issuance of the license for the Pesses Company.

We would appreciate anything you can do to expedite issuance.

Very truly yours,

Molly Tatel

MT:ek

A2

THE PESSES CO.

MARVIN PESSES
PRESIDENT

August 26, 1975

Ms. Kitty S. Dragonette
Materials Branch
Division of Materials and Fuel Cycle Facility Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: MF:M:KSD
(40-8406)

Dear Ms. Dragonette:

Thank you for your letter of August 15th with reference to our application for source material license to process scrap plate containing up to 2% Thorium.

We will attempt to clarify the questions that you raise.

1) The total quantity of source material involved - We were unaware that this included all raw materials, materials in process, possession, storage and waste. We would anticipate that each year we would have available 25,000 lbs. of scrap alloy which would contain a maximum of 500 lbs. of Thorium Oxide. The following year we would expect to get the same amount, but we would then have the 500 lbs. of Thorium Oxide in our possession from the prior year. This would go on for so long as we are able to continue. Therefore, in discussing total amount of Thorium, if we predicated the license on a ten year plan, we would then be talking about 5,000 lbs. of Thorium Oxide to be buried on our property within the ten years at the rate of 500 lbs. per year.

2) The Thorium content of products or materials for distribution - We are enclosing herewith a report from an independent laboratory, Crobaugh Laboratories, proving that the product that we ship would be less than .05% by weight. We would process the material so that all of the Thorium would end up on the slag and not in the product. The quality control we would use would be the usual spectrographic analysis with periodic confirmations by an independent laboratory.

3) Waste disposal - We propose to dispose of the slag by burying on our own property, the exact records to be kept of quantity (weight and assay) and location.

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continued

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29605 HALL STREET, SOLON, OHIO 44139 TELEPHONE (216) 248-0145 TELEX 985540

For your general information, the proposed use of the raw material that we would be receiving would be as an ingredient in the production of a 92% Nickel, 5-1/2% Silicon, remainder Iron alloy. We produce this in the form of shot, and it in turn is used as 1% to 2% addition in the production of low alloy cast irons.

It is our understanding from conversations with your people that the slag resulting from the above production would not have to be containerized. We would bury the slag, which would be highly silicious and would be, for all intents and purposes, in a secluded area, a remote part of our property, and clearly identifying the area, both in our records as well as physically on the property itself.

I trust that the above answers all of the questions that you raise and that we can now see the culmination of our last year and a half's efforts toward obtaining the license in question.

Thanking you for your cooperation, and with best regards, we are,

Very truly yours,

THE PESSES CO.

Marvin Pesses MP

Marvin Pesses

MP/jes
Enc. - Crobaugh's Assay

A2

CROBAUGH LABORATORIES

RESEARCH • ANALYSIS • TESTING

3800 PERKINS AVENUE CLEVELAND, OHIO 44114

216 · 881-7320

AUG 13 1975

The Pesses Company
29605 Hall Street
Solon, Ohio 44139

Reporting Date	August 12, 1975
Lab. No.	H 169
Date Received	August 6, 1975
Material	Nickel Alloy
Marked	3-113
P. O.	Per sample instructions

REPORT

Thorium	<0.05%

Respectfully submitted,

CROBAUGH LABORATORIES

Gary Upperman

cr

A2

Docket

MF:M:KSD
(40-8406)

AUG 15 1975

Pesses Company
ATTN: Dr. Marvin Pesses, President
29605 Hall Street
Solon, Ohio 44139

Gentlemen:

This refers to your application for a source material license to process scrap plate containing up to 2% thorium. We have questions concerning certain aspects of your application. Please clarify the following:

1. Total quantity of source material ~~requested~~ involved. In Item 8(d) you specify 10,000 lbs of thorium, and in Item 8(e), 200 lbs. The total possession limit requested should include all raw materials, materials in process and storage, and waste.

2. Thorium content of products or materials for distribution. Will the thorium be uniformly and homogeneously dispersed in a chemical mixture, compound, solution, or alloy in which the source material content is less than 0.05% by weight? In smelting operations similar to the activities described in your application, the thorium has been observed in the slag residues, not in the iron or steel. If your metallurgical process will disperse the thorium and you wish to distribute the materials to persons exempt under the provisions of 40.13(a) of 10 CFR 40, please submit data showing uniformity and concentration and describe your quality control program to be followed to assure continuing uniformity and concentration less than 0.05%. Dilution calculations are not adequate.

3. Waste disposal. If your response to Item 2 shows that the thorium is concentrated in the slag waste, please indicate your methods of disposal and the records to be kept of that disposal.

8504260215 2pp

OFFICE ▶						
A2 SURNAME ▶						
DATE ▶						

Form AEC-318 (Rev. 9-53) AECM 0240 ☆ U.S. GOVERNMENT PRINTING OFFICE: 1974 – 555-338

Review of your application for a source material license will continue upon receipt of the information requested above. Your response should reference Docket No. 40-8406.

Sincerely,

Kitty S. Dragonette
Materials Branch
Division of Materials and Fuel
Cycle Facility Licensing

Enclosures:
1. 10 CFR Parts 20 & 40
2. Waste Disposal Firms

A2

OFFICE	MF:M	MF:M	MF:M	MF:M	OELD
SURNAME	KSDragonette:emd	NBassin	BSinger	DNussbaumer	R.J. Fonner
DATE	6/26/75	6/1/75	8/4/75	6/5/75	8/1/75

CRESS:EW
647-348
6/24/75

Form AEC-318 (Rev. 9-53) AECM 0240

☆ U.S. GOVERNMENT PRINTING OFFICE: 1975—499-253

10-0746

Regulatory File Cy.

THE PESSES CO.

MARVIN PESSES
PRESIDENT

July 24, 1975

Mrs. Kitty Dragonette
U S Atomic Energy Commission
Business Management Branch
Office of Administrations-Regulations
Washington, D.C. 20545

Dear Mrs. Dragonette:

Thank you for your letter of July 18th.

In view of the fact that we have already received almost the maximum that we are allowed to receive in any calendar year, this precludes our purchasing any more of this material for our use.

In effect, it puts us out of business in a particular segment of our production. In view of the current economic situation, it seems ridiculous to force this to occur. We need this material in order not to have to lay off more people.

We can prevail upon our supplier to continue his very patient wait; however, we certainly would not blame him if he became angry and scratched our name off his list as a customer.

We would appreciate someone taking prompt action on this application and wiring a license number to us immediately after approval so that we could perhaps recoup this segment of business which we will certainly lose if we do not obtain this license soon.

Thanking you for your kind cooperation and looking forward to your assistance, we remain,

Very truly yours,

THE PESSES CO.

Marvin Pesses

MP/jes

P.S. Please call us if this latest application requires clarification prior to approval.

A2 ~~8504260210~~ 1p.

1016

29605 HALL STREET, SOLON, OHIO 44139 TELEPHONE (216) 248-0145 TELEX 985540

BUREAU OF BUDGET NO 38 R0062

UNITED STATES ATOMIC ENERGY COMMISSION

APPLICATION FOR SOURCE MATERIAL LICENSE

Pursuant to the regulations in Title 10, Code of Federal Regulations, Chapter 1, Part 40, application is hereby made for a license to receive, possess, use, transfer, deliver or import into the United States, source material for the activity or activities described.

1 (Check one)
- [X] (a) New license
- [ ] (b) Amendment to License No. _____
- [ ] (c) Renewal of License No. _____
- [ ] (d) Previous License No. _____

2 NAME OF APPLICANT
THE PESSES CO.

3 PRINCIPAL BUSINESS ADDRESS
29605 Hall Street
Solon, Ohio 44139

4 STATE THE ADDRESS(ES) AT WHICH SOURCE MATERIAL WILL BE POSSESSED OR USED
29605 Hall Street, Solon, Ohio 44139

5 BUSINESS OR OCCUPATION
Manufacture & Distribution of alloys

6 (a) IF APPLICANT IS AN INDIVIDUAL, STATE CITIZENSHIP

(b) AGE

7 DESCRIBE PURPOSE FOR WHICH SOURCE MATERIAL WILL BE USED

SEE ATTACHED

8 STATE THE TYPE OR TYPES, CHEMICAL FORM OR FORMS, AND QUANTITIES OF SOURCE MATERIAL YOU PROPOSE TO RECEIVE, POSSESS, USE, OR TRANSFER UNDER THE LICENSE

(a) TYPE	(b) CHEMICAL FORM	(c) PHYSICAL FORM (*Including % U or Th.*)	(d) MAXIMUM AMOUNT AT ANY ONE TIME (*in pounds*)
NATURAL URANIUM			
URANIUM DEPLETED IN THE U 235 ISOTOPE			
THORIUM (ISOTOPE)		2% Thoriated Nickel and/or Nickel Alloys	25,000 lbs. scrap alloy (containing 500 lbs. Thorium Oxide

(e) MAXIMUM TOTAL QUANTITY OF SOURCE MATERIAL YOU WILL HAVE ON HAND AT ANY TIME (*in pounds*)
500 lbs. Thorium contained

9 DESCRIBE THE CHEMICAL, PHYSICAL, METALLURGICAL OR NUCLEAR PROCESS OR PROCESSES IN WHICH THE SOURCE MATERIAL WILL BE USED INDICATING THE MAXIMUM AMOUNT OF SOURCE MATERIAL INVOLVED IN EACH PROCESS AT ANY ONE TIME, AND PROVIDING A THOROUGH EVALUATION OF THE POTENTIAL RADIATION HAZARDS ASSOCIATED WITH EACH STEP OF THOSE PROCESSES

SEE ATTACHED

10 DESCRIBE THE MINIMUM TECHNICAL QUALIFICATIONS INCLUDING TRAINING AND EXPERIENCE THAT WILL BE REQUIRED OF APPLICANT'S SUPERVISORY PERSONNEL INCLUDING PERSON RESPONSIBLE FOR RADIATION SAFETY PROGRAM (OR OF APPLICANT IF APPLICANT IS AN INDIVIDUAL).

SEE ATTACHED

11 DESCRIBE THE EQUIPMENT AND FACILITIES WHICH WILL BE USED TO PROTECT HEALTH AND MINIMIZE DANGER TO LIFE OR PROPERTY AND RELATE THE USE OF THE EQUIPMENT AND FACILITIES TO THE OPERATIONS LISTED IN ITEM 9. INCLUDE (a) RADIATION DETECTION AND RELATED INSTRUMENTS (including film badges, dosimeters, counters, air sampling, and other survey equipment as appropriate. The description of radiation detection instruments should include the instrument characteristics such as type of radiation detected, window thickness, and the range(s) of each instrument).

SEE ATTACHED

(b) METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED IN (a) ABOVE, INCLUDING AIR SAMPLING EQUIPMENT (for film badges, specify method of calibrating and processing, or name supplier).

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11(c) VENTILATION EQUIPMENT WHICH WILL BE USED IN OPERATIONS WHICH PRODUCE DUST, FUMES, MISTS, OR GASES, INCLUDING PLAN VIEW SHOWING TYPE AND LOCATION OF HOOD AND FILTERS, MINIMUM VELOCITIES MAINTAINED AT HOOD OPENINGS AND PROCEDURES FOR TESTING SUCH EQUIPMENT

12 DESCRIBE PROPOSED PROCEDURES TO PROTECT HEALTH AND MINIMIZE DANGER TO LIFE AND PROPERTY AND RELATE THESE PROCEDURES TO THE OPERATIONS LISTED IN ITEM 9. INCLUDE (a) SAFETY FEATURES AND PROCEDURES TO AVOID NONNUCLEAR ACCIDENTS, SUCH AS FIRE, EXPLOSION, ETC., IN SOURCE MATERIAL STORAGE AND PROCESSING AREAS

SEE ATTACHED

(b) EMERGENCY PROCEDURES IN THE EVENT OF ACCIDENTS WHICH MIGHT INVOLVE SOURCE MATERIAL.

SEE ATTACHED

(c) DETAILED DESCRIPTION OF RADIATION SURVEY PROGRAM AND PROCEDURES.

SEE ATTACHED

13 WASTE PRODUCTS: *If none will be generated, state "None" opposite (a), below. If waste products will be generated, check here* ☒ *and explain on a supplemental sheet:*

(a) Quantity and type of radioactive waste that will be generated.

(b) Detailed procedures for waste disposal.

14 IF PRODUCTS FOR DISTRIBUTION TO THE GENERAL PUBLIC UNDER AN EXEMPTION CONTAINED IN 10 CFR 40 ARE TO BE MANUFACTURED, USE A SUPPLEMENTAL SHEET TO FURNISH A DETAILED DESCRIPTION OF THE PRODUCT, INCLUDING:

(a) PERCENT SOURCE MATERIAL IN THE PRODUCT AND ITS LOCATION IN THE PRODUCT.

(b) PHYSICAL DESCRIPTION OF THE PRODUCT INCLUDING CHARACTERISTICS, IF ANY, THAT WILL PREVENT INHALATION OR INGESTION OF SOURCE MATERIAL THAT MIGHT BE SEPARATED FROM THE PRODUCT.

(c) BETA AND BETA PLUS GAMMA RADIATION LEVELS (*Specify instrument used, date of calibration and calibration technique used*) AT THE SURFACE OF THE PRODUCT AND AT 12 INCHES.

(d) METHOD OF ASSURING THAT SOURCE MATERIAL CANNOT BE DISASSOCIATED FROM THE MANUFACTURED PRODUCT.

CERTIFICATE

(*This item must be completed by applicant*)

15 *The applicant, and any official executing this certificate on behalf of the applicant named in Item 2, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 40, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.*

THE PESSES CO.
(*Applicant named in Item 2*)

Dated July 23, 1975

BY: [signature]
(*Print or type name under signature*)
Marvin Pesses

President
(*Title of certifying official authorized to act on behalf of the applicant*)

WARNING: 18 U.S.C. Section 1001; Act of June 25, 1948; 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

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Form AEC-2
Application for Source Material License
July 23, 1975

7. Source materials, 2% maximum ThO_2, such as Nickel-Thoria, in the form of plate scrap, will be used as 10% of a melt along with Nickel, Copper, Silicon, etc., and induction melted under an oxidizing slag cover. The resultant product will be used as an addition agent of 1% maximum in gray iron foundries. However, eventually all of the Thoria will be tied up in an insoluble siliceous slag.

9. As described in Item No. 7, the materials are received as sheared plate, with no fine particles. These are placed into a furnace as 1/10th of a furnace charged with Nickel and Silicon in an induction furnace under a slag cover and then poured into pigs, so there are no airborne particles as fine particulate. In any case, the Thorium content of the metal is almost nil at this point in time. These pigs are used by iron and steel foundries as 1 - 2% of their charge. The Thoria content of the resultant slag will be less than 2%.

10. Dr. Marvin Pesses will supervise any radiation safety program required. However, it is our opinion that the precautions noted below are sufficient unto themselves, based upon many years of past experience.

11. While Vice President at Mercer Alloys, Greenville, Pennsylvania, we melted similarly, checked for radiation levels, and had no problems in this area. Both the sheared plate and the final pigs are handled with gloves. There are no airborne particles and no ventilation is required for this purpose.

12. (a) The source material is stored as heavy sheared plate in 55 gallon heavy gauge steel drums. There is nothing that a fire or explosion will do nor is there any potential for same.

    (b) and (c) We do not believe any is needed, but would be willing to comply with AEC recommendations.

13. The waste slag will be buried and/or stored on our 15 acres of land in conformity with AEC requirements.

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