

EXPERT SYSTEM LICENSE EVALUATION  
EVALUATION REPORT FOR LICENSE SUB-00172

Licensee: ENGELHARD INDUSTRIES INC(D.E. MAKEPEACE DIV.)  
Site of operation: LICENSEE'S ADDRESS

The final ranking for SITE CONTAMINATION is:	135
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DESCRIPTION OF ACTIVITY OR FACILITY: FABRICATION OR MANUFACT

--Type and form of materials licensed--
Material--
SOURCE MATERIAL
--Form--
Loose material

--For evaluation purposes, amounts of the following materials were obtained--			
Material--	--Form--	--Amount--	--Unit--
SOURCE MATERIAL		60000.00	LB

Rank of the license based on the loose materials licensed: 36

DESCRIPTION OF SITE AT WHICH SUB-00172	WAS USED
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PINE & DUNHAM STREETS IN ATTLEBORO, MA.

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1. License was for loose materials, or materials handled loose
  2. There was one identifiable site with this license.
  3. Description of activity was inadequate to determine whether building could have been left with significant contamination.  
No change in rank

Reviewer's comments concerning potential CONTAMINATION  
LICENSEE WORKED WITH LOOSE MATERIALS IN OPERATIONS (ESPECIALLY  
MELTING) WITH A POTENTIAL FOR CONTAMINATION AND WITHOUT THE BENEFIT  
OF AN EFFICIENT HEALTH PHYSICS PROGRAM.

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4. There was some decon of facility or site at CLOSEOUT  
Rank=0.9\*rank
  5. There was inconclusive evidence of releases to the environment  
or there was evidence of limited release. Rank=1.2\*rank
  6. Information insufficient to judge frequency of turnover for  
operation Rank not changed
  7. There was limited use of glove boxes, hoods, or protective  
clothing
  8. Possible inappropriate disposal or abandonment of contaminated  
material from glove boxes, hoods, clothing. Rank=rank\*1.1

--- continued on next page ---

9. There was significant generation of waste material in routine cleanup of facility. Rank=rank\*1.5
10. Possible inappropriate disposal or abandonment of contaminated material from cleanup. Rank=rank\*1.2
11. There was limited generation of slag or sludge in the operation.
12. File contains evidence that slag or sludge generated was left or inappropriately disposed of. Rank=rank\*1.4
13. There was some documentation of materials disposition, but not complete. Rank=rank\*0.9
14. There was no information in file indicating burial or dumping by licensee. Rank not changed
15. There WAS a closeout survey for this license. Change in rank depends on the quality of survey.
16. The closeout survey was conducted before 1970. Rank=rank\*.90
17. There was some check for alpha contamination, but not thorough. Rank=0.85\*rank
18. There was NOT an NRC FINAL INSPECTION of the facility. Rank not changed.

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CATEGORY FOR POTENTIAL SITE CONTAMINATION:  
HIGHEST PRIORITY-Category 1A

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The final ranking for SITE CONTAMINATION is:	135
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Description of THE LICENSEE ACTIVITY AUTHORIZED by this license

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FUEL ELEMENT FABRICATION AND SOME RESEARCH AND DEVELOPMENT

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--- continued on next page ---

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Reviewer's comments concerning license SUB-00172

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SUB-172 was issued in April, 61, for the Attleboro, Ma. facility previously covered under license C-3719 issued in April, 57; C-4941; and C-5161. The chief operation under this license appeared to be the fabrication of fuel elements. There is no intermediate inspection for SUB-172, but the inspection of Dec., 61(? 1960) cited the previous license C-5161 for several noncompliances including inadequate air sampling for uranium concentrations in unrestricted areas due to incineration of uranium contaminated waste; no air samples around the melting furnace; failure to limit exposures of the melt operator; and no labels on depleted uranium containers.

Three licensee letters provided the following information on disposition, decontamination, and the survey.

8-27-62: All source and SNM have been disposed of according to regulations. All processing and storage areas have been decontaminated.

10-10-62: Contaminated equipment sold to Italian AEC and is being shipped.

6-27-63: Requested termination of the license. Licensee survey was attached.

An unsigned letter of 9-27-63 from the director of Division of Licensing and Regulation states that the review of the survey concluded that due to insignificance of contamination no license would be required for receiving or possessing the equipment or facility. The survey should be reviewed as it appears contamination was left in the facility which would not be acceptable by present standards.

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EXPERT SYSTEM EVALUATION WAS BASED ON THE  
INVENTORY RECORD IN JOB 0526, BOX 02

Docket 40-00768

Licensee: ENGELHARD INDUSTRIES INC (D.E. MAKEPEACE DIV.)

Address: PINE & DUNHAM STS., ATTLEBORO, MA                      Zip:

State of operation: MA

Disposition information present: LICENSEE LETTER STATING DISPOSITION

Contents of letter: 3 LETTERS (8-27-62; 10-10-62; & 6-27-63)

A closeout survey was conducted for this license by the licensee

This license was listed as terminated on 09/27/63

Remarks:

JOB NUMBER: 0526      BOX NUMBER: 02

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Date of last evaluation/revision: 08/11/92

Reviewer:

EXPERT SYSTEM LICENSE EVALUATION  
EVALUATION REPORT FOR LICENSE C-03719

Licensee: D.E. MAKEPEACE  
Site of operation: LICENSEE'S ADDRESS

INFORMATION ON EXACT AMOUNTS OF MATL WAS NOT NEEDED TO EVALUATE

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THIS LICENSE WAS ELIMINATED FROM CONSIDERATION  
The reason for elimination was: SUPERCEDED BY NEW LICENSE

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EXPERT SYSTEM EVALUATION WAS BASED ON THE  
INVENTORY RECORD IN JOB 0526, BOX 02

Docket 40-00768

Licensee: D.E. MAKEPEACE  
Address: ATTLEBORO MASSACHUSETTS  
State of operation: MA  
Site used: LICENSEE'S ADDRESS  
Disposition information present: NO DISPOSITION INFORMATION GIVEN  
This license was listed as expired on 05/31/59  
Remarks:  
JOB NUMBER: 0526 BOX NUMBER: 02

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Date of last evaluation/revision: 08/11/92

Reviewer:

EXPERT SYSTEM LICENSE EVALUATION  
EVALUATION REPORT FOR LICENSE C-04941

Licensee: ENGELHARD INDUSTRIES INC.(D.E. MAKEPEACE DIV.)  
Site of operation: LICENSEE'S ADDRESS

INFORMATION ON EXACT AMOUNTS OF MATL WAS NOT NEEDED TO EVALUATE

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THIS LICENSE WAS ELIMINATED FROM CONSIDERATION

The reason for elimination was: SUPERCEDED BY NEW LICENSE

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EXPERT SYSTEM EVALUATION WAS BASED ON THE  
INVENTORY RECORD IN JOB 0526, BOX 02

Docket 40-00768

Licensee: ENGELHARD INDUSTRIES INC.(D.E. MAKEPEACE DIV.)

Address: PINE & DUNHAM STS., ATTLEBORO, MA Zip:

This license was listed as SUPERCEDED BY ANOTHER LICENSE

Contents of the new license field C-5161 ISSUED IN JULY, 60

State of operation: MA

Site used: LICENSEE'S ADDRESS

Disposition information present: NO DISPOSITION INFORMATION GIVEN

Remarks: LICENSEE ALSO ASSOCIATED WITH BAKER AND CO.

JOB NUMBER: 0526 BOX NUMBER: 02

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Date of last evaluation/revision: 08/11/92

Reviewer:



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON 25, D. C.

IN REPLY REFER TO:

40-768  
L&R:ND

Engelhard Industries, Inc.  
D. E. Makepeace Division  
Pine & Dunham Streets  
Attleboro, Massachusetts

Attention: Mr. P. A. Anderson

SOURCE MATERIAL LICENSE

License No. SUB-172

Dated: APR 21 1961

Pursuant to the Atomic Energy Act of 1954 and the Code of Federal Regulations, Title 10 - Atomic Energy, Chapter 1, Part 40 - Control of Source Material, you are hereby licensed to receive, possess, and use, at the above stated location, sixty thousand (60,000) pounds of source material for research and development and fuel element fabrication in accordance with procedures outlined in your applications for special nuclear material license (Docket 70-139) and in your letter of November 30, 1960.

Any transfers of the above licensed source material shall be in accordance with the provisions of Section 40.51 of Title 10, Code of Federal Regulations.

You are required to maintain records showing the receipt, transfer, export and disposal of the above licensed source material in accordance with the provisions of Section 40.61 of 10 CFR.

This license is subject to all the provisions of the Atomic Energy Act of 1954 now or hereafter in effect and to all valid rules and regulations of the U. S. Atomic Energy Commission, including 10 CFR 20, "Standards for Protection Against Radiation."

Neither this license nor any right under this license shall be assigned or otherwise transferred in violation of the provisions of the Atomic Energy Act of 1954.

This license shall expire April 30, 1964.

FOR THE ATOMIC ENERGY COMMISSION

NYOO COMPLIANCE DIVISION

APR 24 1961

RECEIVED

J. C. Delaney  
~~Chief, Nuclear Materials Branch~~  
Division of Licensing & Regulation



**ENGELHARD INDUSTRIES, INC.**

D. E. MAKEPEACE DIVISION  
PINE & DUNHAM STREETS  
ATTLEBORO, MASS.  
ATTLEBORO 1-0080

April 3, 1961

Mr. J. C. Delaney, Chief  
United States Atomic Energy Commission  
Nuclear Materials Section  
Licensing Branch  
Division of Licensing and Regulation  
Washington 25, District of Columbia

Subject: Source Material License #C-4941  
Request for Renewal

Dear Mr. Delaney:

Application is hereby made for renewal of our Source  
Material License which expired December 31, 1960.


1. The terms and conditions of this renewal will  
be identical to those found in your letter  
#40-768 dated December 3, 1959, to the atten-  
tion of Mr. John H. Durant.

Detailed information on our operation is available in  
your office with our application for a Special Nuclear Materials  
License, Docket 70-139.

We trust that the above information is sufficient for  
renewal purposes and would request your earliest possible action  
on this matter. Please contact the undersigned if more informa-  
tion is required.

Very truly yours,

ENGELHARD INDUSTRIES, INC.  
D. E. Makepeace Division

  
P. A. Anderson, Business Manager

PAA:pmr





UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON 25, D. C.

IN REPLY REFER TO:

**40-768**

**Engelhard Industries, Inc.  
(A Delaware Corporation)  
D. E. Makepeace Division  
Pine & Dunham Streets  
Attleboro, Massachusetts**

**Attention: Mr. John H. Durant**

**SOURCE MATERIAL LICENSE**

License No.

**C-5161**

Dated:

**JUL 15 1960**

Pursuant to the Atomic Energy Act of 1954 and Section 40.21 of the Code of Federal Regulations, Title 10 - Atomic Energy, Chapter 1, Part 40 - Control of Source Material, you are hereby licensed to receive possession of and title to

**, at the above stated location, sixty thousand (60,000) pounds of source material for research and development and fuel element fabrication, in accordance with the procedures outlined in connection with your applications for a special nuclear material license - Docket 70-139.**

You are further licensed to transfer and deliver possession of and title to refined source material to any person licensed by the Atomic Energy Commission, within the limits of his license.

As a condition of this license, you are required to maintain records of your inventories, receipts and transfers of refined source material.

This license is subject to all the provisions of the Atomic Energy Act of 1954 now or hereafter in effect and to all valid rules and regulations of the U. S. Atomic Energy Commission, including 10 CFR 20, "Standards For Protection Against Radiation."

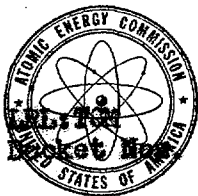
Neither this license nor any right under this license shall be assigned or otherwise transferred in violation of the provisions of the Atomic Energy Act of 1954.

This license shall expire

**December 31, 1960.**

FOR THE ATOMIC ENERGY COMMISSION

J. C. Delaney  
Chief, Nuclear Materials Section  
Licensing Branch  
Division of Licensing & Regulation



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON 25, D. C.

70-90 & 70-139  
40-768

IN REPLY REFER TO:

Engelhard Industries,  
Executive Offices  
113 Astor Street  
Newark 2, New Jersey

Attention: Mr. John F. Thompson, Jr.  
Secretary

Gentlemen:

Reference is made to your letters of April 21, 1960, (re License No. SSM-98) and May 9, 1960 (re License No. SSM-185 and ~~C-4941~~) with which you made known the transfer of part of the business of Engelhard Industries, Inc., a New Jersey corporation, to Engelhard Industries, Inc., a Delaware corporation and your letters of May 26 and June 2, 1960, with which you provided the corporate data for the Delaware corporation.

As you have requested in the referenced letters, Special Nuclear Material Licenses No. SSM-98 and SSM-185 have been transferred to Engelhard Industries, Inc., a Delaware corporation, and an amended copy of each is enclosed.

Enclosed is Source Material License No. C-5161, issued to the Delaware corporation, in lieu of license C-4941 which has been canceled.

Very truly yours,

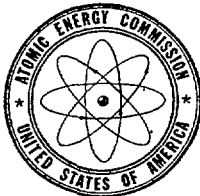
J. C. Delaney  
Chief, Nuclear Materials Section  
Licensing Branch  
Division of Licensing and Regulation

Enclosures:  
SSM-98, as amended  
SSM-185, as amended  
C-5161

NYCO INSPECTION DIVISION

JUN 22 1960

RECEIVED



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON 25, D. C.

IN REPLY REFER TO:

40-764

Engelhard Industries, Inc.  
D. E. Haysman Division  
Pine & Boston Streets  
Attleboro, Massachusetts

Attention: Mr. John H. Durant

**Statement**

Pursuant to the Atomic Energy Act of 1954 and Section 40.21 of the Code of Federal Regulations, Title 10 - Atomic Energy, Chapter 1, Part 40 - Control of Source Material, you are hereby licensed to receive possession of and title to, ~~at the above stated location, sixty thousand (60,000) pounds of source material for research and development and fuel element fabrication, in accordance with the procedures outlined in connection with your applications for a special nuclear material license, Docket 70-139.~~

You are further licensed to transfer and deliver possession of and title to refined source material to any person licensed by the Atomic Energy Commission, within the limits of his license.

As a condition of this license, you are required to maintain records of your inventories, receipts and transfers of refined source material.

This license is subject to all the provisions of the Atomic Energy Act of 1954 now or hereafter in effect and to all valid rules and regulations of the U. S. Atomic Energy Commission, including 10 CFR 20, "Standards For Protection Against Radiation."

Neither this license nor any right under this license shall be assigned or otherwise transferred in violation of the provisions of the Atomic Energy Act of 1954.

This license shall expire ~~December 31, 1960.~~

SOURCE MATERIAL LICENSE

License No. C-4301

Dated: DEC 3 1958

*transferred to new  
license C-5161*

NYOO INSPECTION DIVISION

JAN 7 1960

RECEIVED

FOR THE ATOMIC ENERGY COMMISSION

J. C. Delaney  
Chief, Nuclear Materials Section  
Licensing Branch  
Division of Licensing & Regulation

**ENGELHARD INDUSTRIES, INC.**

D. E. MAKEPEACE DIVISION

PINE & DUNHAM STREETS

ATTLEBORO, MASS.

ATTLEBORO 1-0090

For Div of Inspection

November 24, 1959

DOCKET NO. 40-768

U. S. Atomic Energy Commission  
Germantown  
Maryland

ATTN: Mr. L. Johnson, Chief  
Licensing Branch  
Div. of Civilian Application

REF: Source Material License C-3719  
Request for Renewal and Amendment

Gentlemen:

Application is hereby made for renewal of our Source Material License which expired on May 31, 1959.

In addition, it is requested that the present limit of 10,000 lbs. be increased to 60,000 lbs. This increase is required to accommodate the blanket metal for the fabrication of the Enrico Fermi Fast Breeder Reactor Core as well as several other small orders we anticipate in the future involving depleted or normal uranium. Furthermore, a stock of such material must be maintained to provide for the production of dummy enriched prototypes in connection with our varied fuel fabricating operations.

It is our feeling that the suitability of our facilities and the technical qualification of our organization which enable us to handle and store these quantities are well documented in our Special Nuclear Materials License SNM-185, Docket 70-139.

We trust that sufficient information is provided here to enable you to act on our request.

Very truly yours,

D. E. MAKEPEACE DIVISION

*John H. Durant*  
John H. Durant  
Business Manager

JHD/bs



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON 25, D. C.

IN REPLY REFER TO:

40-768

LAL:ED

D. E. Makerspace Division  
Engelhard Industries, Inc.  
Fine & Dunham Streets  
Attleboro, Massachusetts

SOURCE MATERIAL LICENSE

License No. **C-3719**

Dated: **MAY 12 1958**

Attention: Mr. W. F. Mitterdorf

Pursuant to the Atomic Energy Act of 1954 and Section 40.21 of the Code of Federal Regulations, Title 10 - Atomic Energy, Chapter 1, Part 40 - Control of Source Material, you are hereby licensed to receive possession of and title to, **at the above stated location, ten thousand (10,000) pounds of source material during the term of this license for research and development and fuel element fabrication.**

You are further licensed to transfer and deliver possession of and title to refined source material to any person licensed by the Atomic Energy Commission, within the limits of his license.

As a condition of this license, you are required to maintain records of your inventories, receipts and transfers of refined source material.

This license is subject to all the provisions of the Atomic Energy Act of 1954 now or hereafter in effect and to all valid rules and regulations of the U. S. Atomic Energy Commission, including 10 CFR 20, "Standards For Protection Against Radiation."

Neither this license nor any right under this license shall be assigned or otherwise transferred in violation of the provisions of the Atomic Energy Act of 1954.

This license shall expire **May 31, 1959.**

FOR THE ATOMIC ENERGY COMMISSION

J. C. Delaney  
Chief, Materials Section  
Licensing Branch  
Division of Licensing and Regulation



40-768

**ENGELHARD INDUSTRIES, INC.**

**D. E. MAKEPEACE DIVISION**

PINE & DUNHAM STREETS

ATTLEBORO, MASS.

ATTLEBORO 1-0090

**May 28, 1958**

**Mr. Lyall Johnson  
Chief Licensing Branch  
Division of Civilian Application  
United States Atomic Energy Commission  
Washington 25, D. C.**

**Dear Mr. Johnson:**

**Subject: Source Material License  
#3719  
Request for Renewal**

**Application is hereby made for renewal of our source material license which is due to expire on May 1, 1958. We would appreciate having the terms of the license altered as follows:**

- 1. The name of our organization should be changed from D. E. Makepeace Company, Division of Union Plate and Wire Company to:**

**D. E. Makepeace Division  
Engelhard Industries, Inc.**

**In accordance with the letterhead.**

**We wish to have the amount of source material increased from the present 100 pounds to 10,000 pounds.**

**This material is required for the following purposes:**

- A. For research and development work on alloying, rolling, drawing and otherwise fabricating uranium and its alloys.**
- B. For use in the manufacture of blanket fuel assemblies for resale.**

**ENGELHARD INDUSTRIES, INC.**

**D. E. MAKEPEACE DIVISION**

PINE & DUNHAM STREETS

ATTLEBORO, MASS.

ATTLEBORO 1-0090

**Mr. Lyall Johnson**

**-2-**

**April 28, 1958**

**C. For use in adjusting the U-235 enrichment of special nuclear materials and alloys, in licensed operation and AEC contract work.**

**D. For resale as rolled and fabricated shapes and strip, as pure source material and as alloy.**

**Detailed information on our operations is available in your office in connection with our application for a Special Nuclear Materials License, docket #70-139.**

**We trust that sufficient information is given here to enable you to act on our renewal request.**

**Very truly yours,**

**D. E. MAKEPEACE DIVISION**

*W. F. Mittendorf*  
**W. F. Mittendorf, Vice-President**

**WFM/jhd**

UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON 25, D. C.

IN REPLY REFER TO:

40-768

SOURCE MATERIAL LICENSE

License No. C-3719

Dated: APR 10 1958

D. E. Makepeace Company  
Division of Union Plate & Wire Co.  
Attleboro, Massachusetts

Attention: Mr. W. F. Mittendorf - Attleboro 1 - 0089  
General Manager

Gentlemen:

Pursuant to the Atomic Energy Act of 1954 and Section 40.21 of the Code of Federal Regulations, Title 10 - Atomic Energy, Chapter 1, Part 40 - Control of Source Material, you are hereby licensed to receive possession of and title to ~~one~~ hundred pounds of uranium metal during the term of this license for use in experiments on rolling, drawing and fabrication, and in the preparation of sample and experimental fuel elements.

You are further licensed to transfer and deliver possession of and title to refined source material to any person licensed by the Atomic Energy Commission, within the limits of his license.

As a condition of this license, you are required to maintain records of your inventories, receipts and transfers of refined source material.

This license is subject to all the provisions of the Atomic Energy Act of 1954 now or hereafter in effect and to all valid rules and regulations of the U. S. Atomic Energy Commission, including 10 CFR 20, "Standards For Protection Against Radiation."

Neither this license nor any right under this license shall be assigned or otherwise transferred in violation of the provisions of the Atomic Energy Act of 1954.

This license shall expire May 1, 1958.

FOR THE ATOMIC ENERGY COMMISSION

and  
dispatched

Lyall Johnson  
Chief, Licensing Branch  
Division of Civilian Application

Enclosure:  
10 CFR 20

CC: Document Room  
Docket Officer  
Mann, INS, w/cy application



D.E. MAKEPEACE CO.  
DIV. OF UNION PLATE & WIRE CO.  
ATTLEBORO, MASS,

April 4, 1957

U. S. Atomic Energy Commission  
1901 Constitution Avenue  
Washington 25, D. C.

Att: Mr. Lyall Johnson  
Chief, Licensing Controls Branch  
Division of Civilian Application

Gentlemen:

Application is made herewith for permission to receive possession of and title to 100 lbs. of source material, uranium metal, for use as follows:

- a. In experiments of the rolling, drawing, and fabrication of uranium, and
- b. In the preparation of sample and experimental clad fuel elements.

The D. E. Makepeace Company at present is an accountability station under the Pittsburgh Area and the Chicago Operations Office of the Atomic Energy Commission with approved accountability and health and safety procedures. We desire this license in order that we may make use of uranium metal now in the possession of our parent company, Baker & Co., Inc., Newark, New Jersey, in developing fabrication procedures beyond the scope of our current contracts and purchase orders issued by the Atomic Energy Commission prime contractors.

We hereby swear (or affirm) that the above information is full and true to the best of our knowledge and belief.

  
W. F. Mittendorf  
General Manager

April 4, 1957

Subscribed and duly sworn to before me according to law by the  
above-named applicant this 8th day of April, 1957, at Attleboro,  
County of Bristol, and State of Mass.

James M. Crowley  
Notary Public

NOTARY PUBLIC

My Commission Expires May 24, 1963

