

APPENDIX

Form AEC-313 12-73 10 CFR 20		UNITED STATES ATOMIC ENERGY COMMISSION APPLICATION FOR BYPRODUCT MATERIAL LICENSE		Bureau approved Application Number: 38-PJ017
INSTRUCTIONS - Complete items 1 through 16 if this is an initial application or an application for renewal of a license. Information contained in previous applications filed with the Commission with respect to items 8 through 15 may be incorporated by reference provided references are clear and specific (the supplemental sheets where necessary). Item 15 must be completed on all applications. Mail two copies to: US Atomic Energy Commission, Washington, D.C. 20545, Attention: Materials Branch, Directorate of Licensing. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 20, and the license is subject to Title 10, Code of Federal Regulations, Part 20, and the license fee provisions of Title 10, Code of Federal Regulations, Part 170. The license fee category should be stated in item 16 and the appropriate fee enclosed (See Note in Instruction Sheet).				
1. (a) NAME AND STREET ADDRESS OF APPLICANT (Institution, firm, hospital, person, etc. include ZIP Code and telephone number)		(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED (If different from 1(a) include ZIP Code)		
TITANIUM PIGMENT DIVISION N L Industries, Inc. P.O. Box 58, South Amboy, N. J. 08879		Foot of Chevalier Ave. Sayreville, N. J. 08872		
2. DEPARTMENT TO USE BYPRODUCT MATERIAL Titanium Pigment Production		3. PREVIOUS LICENSE NUMBER(S) (If this is an application for renewal of a license, please indicate and give number) 29-00270-08		
4. INDIVIDUAL USER(S) (Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in items 8 and 9)		5. RADIATION PROTECTION OFFICER (Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in items 8 and 9)		
Norman Hartle Instrument Engineer James Coleman Mechanical Dept. Manager		Norman Hartle		
6. (a) BYPRODUCT MATERIAL (Name and mass number of isotope)		(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME (If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source)		
Cesium 137		Add to our license three (3) 50 millicurie sources and two (2) 100 millicurie sources as contained in Ohmart Model ED-6 density gauges using source holders Model SR-1, capsule type A2102 These units to be transferred from our St. Louis plant. License No. 24-11075-1.		
7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED (If byproduct material is for human use, Supplement A (Form AEC 313a) must be completed as part of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used)				
Titanium sulphate solution and titanium dioxide slurry service.				
9901130350 781228 PDR RC * PDR SSD				

(Continued on reverse side)

APPENDIX-(Continued)

TRAINING AND EXPERIENCE

A. TYPE OF TRAINING

- a. Principles and practices of radiation protection
- b. Radiometric measurement standardization and monitoring techniques and instruments
- c. Mathematics and calculations basic to the use and measurement of radioactivity
- d. Biological effects of radiation

WHERE TRAINED

Norman Hartle
16 HRS. at Industrial
Nucleonics
10 Hr. in Plant by
J. Coleman
James Coleman
Butler University
U.S. Army Signal Corp.
(See our letter of 4-5-1978)

DURATION OF TRAINING

ON THE JOB (Circle answer)

FORMAL COURSE (Circle answer)

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

B. EXPERIENCE WITH RADIATION

(Actual use of radioisotopes or equivalent experience)

WHERE EXPERIENCE WAS GAINED

ISOTOPE

MAXIMUM AMOUNT

Cs

137

2600

Co60

3000 Mc

For N. Hartle
NL Ind., Sayreville
N. J. Plant

DURATION OF EXPERIENCE

11 Years

TYPE OF USE

Chemical
Process
Instruments

C. RADIATION DETECTION INSTRUMENTS

(Use supplemental sheets if necessary)

TYPE OF INSTRUMENTS

(Include make and model number of each)

NUMBER AVAILABLE

RADIATION DETECTED

SENSITIVITY RANGE (mr/hr)

WINDOW THICKNESS (mg/cm²)

USE (Monitoring, surveying, measuring)

Baird No. 240

2

Beta
Gamma0-100
Mr/Hr2.0
MG/CM²

Surveys

D. AUTHORITY, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE

Calibrated by the manufacturer

Film badges, dosimeters, and bio assay procedures used (For film badges, specify method of calibrating and processing, or name of supplier)

E. INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS IN DUPLICATE

13. FACILITIES AND EQUIPMENT Describe laboratory facilities and complete handling equipment, storage containers, shielding, fume hoods, etc. (Circle answer) Yes No Explanatory sheets
14. RADIATION PROTECTION PROGRAM Describe the radiation protection program including control measures. If application covers sealed sources, submit test results procedures where applicable, name, training and experience of person to perform leak tests, and arrangements for performing initial radiation survey, testing, maintenance and repair of the source
15. WASTE DISPOSAL If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity sent to

F. CERTIFICATE (This form must be completed by applicant)

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMANCE WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PART 20, AND THAT ALL INFORMATION CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

Licenses For Category 1:

For Enclosed 1:

TITANIUM PIGMENT DIVISION
N. J. Industries, Inc.

By: *Norman Hartle*

Radiation Safety Officer

Date:

WASH. NO. 12 U.S.C. Section 1001, Act of June 25, 1948, 62 Stat. 249. Makes it a criminal offense to make a willfully false statement or representation to any Department or Agency of the United States or to any officer or employee thereof.