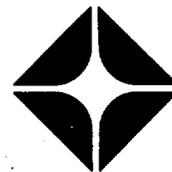


AtlanticRichfieldCompany

Products Division
Harvey Technical Center
400 East Sibley Boulevard
Harvey, Illinois 60426
Telephone 312 468 9300
Research & Development



June 26, 1972

U.S. Atomic Energy Commission
Washington, D. C. 20545

Attention: Isotopes Branch,
Division of Materials Licensing

Gentlemen:

Attached are two copies of completed form
AEC-313 for renewal of Byproduct Material License
No. 12-00140-04 and amendments.

Yours very truly,

ATLANTIC RICHFIELD COMPANY

A. I. Snow,
Chairman, Radioisotope Committee

AIS:msk
Attachment

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TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 (Use supplemental sheets if necessary)		DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
8. TYPE OF TRAINING	WHERE TRAINED		Yes No	Yes No
a. Principles and practices of radiation protection	See attached sheet.		Yes No	Yes No
b. Radioactivity measurement standardization and monitoring techniques and instruments			Yes No	Yes No
c. Mathematics and calculations basic to the use and measurement of radioactivity			Yes No	Yes No
d. Biological effects of radiation			Yes No	Yes No

9. EXPERIENCE WITH RADIATION. (Actual use of radioisotopes or equivalent experience.)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
See attached sheet.				

10. 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./cm ²)	USE (Monitoring, surveying, measuring)
See attached sheet.					

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.
 At least every 6 months and more frequently when used.

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED. (For film badges, specify method of calibrating and processing, or name of supplier.)
 Film Badges - R. S. Landauer
 Tritium Bio-assays - New England Nuclear

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS IN DUPLICATE

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached. (Circle answer) Yes No See letter of May 16, 1957.
14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source. See letters from A. I. Snow of 8-5-59, 7-5-60, 9-8-60 and 11-25-69.
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 involved. Atomic Disposal Co., Inc. See also letter of 9-8-60.

CERTIFICATE (This item 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 CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PART 30, AND THAT ALL INFORMATION CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

Date June 26, 1972
 RECEIVED
 MAIL SECTION
 REGULATORY
 COMM. BY CCM
 S. ATOM. SEC. DIV.
 1972 JUN 28 AM 11 20

ATLANTIC RICHFIELD COMPANY
 Applicant named in item 1
 By: A. I. Snow
 A. I. Snow,
 Chairman, Radioisotope Committee
 Title of certifying official

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.

8. A. I. Snow

a.	Ames Laboratory of the AEC University of Chicago Sinclair Research, Inc. & Atlantic Richfield Company	7 years 2 years 17 years	yes	yes
b.	Ditto	26 years	yes	yes
c.	Ditto	26 years	yes	yes
d.	Ditto	26 years	yes	yes

Lloyd A. Baillie

a.	Argonne Cancer Research Hospital Sinclair Research, Inc. & Atlantic Richfield Company	1 year 16 years	yes yes	no no
b.	Ditto	16 years	yes	no
c.	South Dakota State College DePaul University Sinclair Research, Inc. & Atlantic Richfield Company	5 years 16 years	no yes	yes no
d.	Argonne Cancer Research Hospital Sinclair Research, Inc. & Atlantic Richfield Company	1 year 16 years	yes yes	no no

George A. Uhl

a.	University of Michigan	3 weeks	no	yes
b.	Sinclair Research, Inc. & Atlantic Richfield Company	16 years	yes	no
c.	Ditto	16 years	yes	yes
d.	Ditto	16 years	yes	yes

9. A. I. Snow

Natural Uranium	many pounds	Ames Laboratory of the AEC	7 years	Metallurgy
Natural Thorium	many pounds	Ames Laboratory of the AEC	7 years	Metallurgy
CO-60	1700 curies	Sinclair Research, Inc. & Atlantic Richfield Co.	16 years	Radiation Source
Fe-59	100 mc	Ditto	13 years	Wear Tests
Sc-46	100 mc	Ditto	1 year	Tracer Tests in Refinery
Au-198	1 curie	Ditto	3 years	Tracer Tests with Catalysts
C-14	40 millicuries	Ditto	10 years	Tracer Tests
P-32	100 millicuries	Ditto	4 years	Tracer Tests

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9. A. I. Snow (Continued)

Nr63	100 millicuries	Sinclair Research, Inc. & Atlantic Richfield Co.	10 years	Tracer Tests
S-35	20 millicuries	Ditto	3 years	Tracer Tests
H-3	100 curie	Ditto	10 years	Tracer Tests
Ra-226	3 millicuries	Ditto	5 years	Calibration Sources
Sr-Y-90	3 millicuries	Ditto	7 years	Measuring C/H Ratios
As-76	2 millicuries	Ditto	1 year	Tracer
Ca-64	2 millicuries	Ditto	1 year	Tracer
Cs-137	0.5 curie	Ditto	10 years	External Source
Kr-85	1 curie	Ditto	7 years	Gas Tracer
Ta-182	50 millicuries	Ditto	5 years	Wear Tests

Lloyd A. Baillie

Fe-59	100 mc	Sinclair Research, Inc., & Atlantic Richfield Co.	16 years	Tracer & Wear Tests
Sc-46	100 mc	Ditto	16 years	Tracer Tests in Refinery
Fe-55	5 curies	Ditto	16 years	Wear Tests
Au-198	1 curie	Ditto	16 years	Tracer Tests
Cs-137	0.5 curies	Ditto	16 years	External Source
N-63	100 millicuries	Ditto	16 years	Tracer
H-3	100 curies	Ditto	16 years	Tracer Tests
C-14	40 millicuries	Ditto	16 years	Tracer Tests
CO-60	17000 curies	Ditto	16 years	Radiation Source
I-131	50 curies	Argonne Cancer Research Hospital	1 year	Medical
P-32	5 curies	Ditto	1 year	Medical

9. (Continued)

George A. Uhl

Sc-46	100 mc		Sinclair Research, Inc. & Atlantic Richfield Co.	16 years		Tracer Tests
Au-198	1 curie		Ditto	16 years		Tracer Tests
C-14	40 millicuries		Ditto	16 years		Tracer Tests
CO-60	17000 curies		Ditto	16 years		Radiation Source
Cs-137	1 curie		Ditto	16 years		External Source
H-3	100 curies		Ditto	16 years		Tracer Tests

10.

Nuclear measurements	GS-3cD	1	gamma	0-50	(35)	Survey
Nuclear Chicago	2612	3	beta-gamma	0-20	1.4	"
Baird Atomic	420	1	gamma	0-100	(30)	"
Tracerlab	SU-IE	1	beta-gamma	0-1500	3	"
Juno	SRJ-3	1	beta-gamma	0-5000	0.5	"
"	HRJ-3	1	beta-gamma	0-25000	0.5	"
Eon	PSM-700	2	gamma	0-50		"
Nuclear Chicago	D-47	2	beta			Measure
Ditto	181A	1				"
Ditto	192A	1				"
Ditto	1613A					"
Ditto	1619	1				"
Ditto	1620	2				"
Ditto	1810	2				"
Ditto	6000	1				"
Baird Atomic	125B	2				"
Packard Tricarb	3214	1	beta			"
Beckman	Beta-Mate 163960	1	beta			"
Jordon Rams II		1	gamma	0.1-100		Monitor
Tracerlab	SU-3C	1				"

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