NRC FORM 374 U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 86

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 39, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). 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 Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. E. R. Squibb and Sons, Inc. 2. One Squibb Drive P. O. Box 191 New Brunswick, New Jersey 08903-0191	In accordance with the letter dated October 30, 1992, 3. License number 29-00139-02 is amended in its entirety to read as follows: 4. Expiration date April 30, 1997 5. Docket or Reference No. 030-05222

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Any byproduct material with Atomic Nos. 1-83 inclusive, except Strontium 90	A. Any	A. 5 curies per radionuclide and 1000 curies total
B. Molybdenum 99/Technetium 99m	B. Any	B. 500 curies
C. Iodine 131	C. Any	C. 150 curies
D. Hydrogen 3	D. Any	D. 20 curies
E. Carbon 14	E. Any	E. 20 curies
F. Sulfur 35	F. Any	F. 10 curies
G. Strontium 90	G. Any	G. 10 microcuries
H. Any byproduct material with Atomic Nos. 1-83 inclusive, except Strontium 90	H. Any	H. 200 millicuries per radionuclide and 6 curies total
I. Hydrogen 3	I. Any	I. 5 curies
J. Carbon 14	J. Any	J. 4 curies
K. Phosphorus 33	K. Any	K. 1 curie
L. Sulfur 35	L. Any	L. 10 curies
M. Molybdenum 99/Technetium 99m	M. Any	M. 50 curies
N. Iodine 125	N. Any	N. 500 millicuries
O. Iodine 131	O. Any	O. 500 millicuries
P. Any byproduct with Atomic Nos. 1 through 83 inclusive, except Strontium 90	P. Any	P. Not to exceed 10 millicuries per radionuclide and 1 curie total
Q. Hydrogen 3	Q. Any	Q. 50 millicuries
R. Hydrogen 3	R. Any	R. 40 millicuries
S. Carbon 14	S. Any	S. 40 millicuries
T. Phosphorus 32	T. Any	T. 200 millicuries
U. Phosphorus 33	U. Any	U. 200 millicuries
V. Sulfur 35	V. Any	V. 300 millicuries
W. Iodine 125	W. Any	W. 20 millicuries

E/21

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number 29-00139-02

Docket or Reference number 030-05222

Amendment No. 86

(6, 7, 8. Continued)

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
X. Nickel 63	X. Plated sources in detector cells	X. Not to exceed 15 millicuries per source and 750 millicuries total

9. Authorized use:

A., B., and C. (1) Research and development as defined in 10 CFR 30.4.
(2) For possession use and processing incident to the manufacture of radiochemicals and radiopharmaceuticals.
(3) For storage prior to distribution of manufactured radiochemicals and radiopharmaceuticals.
(4) For packaging and distribution of manufactured radiochemicals and radiopharmaceuticals to persons authorized to receive the licensed material pursuant to the terms and conditions of a specific license issued by the Nuclear Regulatory Commission or an Agreement State.

D. through X. Research and development as defined in 10 CFR 30.4; calibration of instruments.

CONDITIONS

10. A. Licensed material in Items 6.A., through 6.G. and 6.X. may only be used at licensee's facilities at One Squibb Drive, New Brunswick, New Jersey.

B. Licensed material in Items 6.H. through 6.L. and 6.X. may only be used at licensee's facilities at the ConvaTec facility at 200 Headquarters Drive, Skillman, New Jersey.

C. Licensed material in Items 6.H. through 6.O., and 6.X. may only be used at Route 206 and Provinceline Road, Lawrenceville, New Jersey.

D. Licensed material in Items 6.P., 6.Q., and 6.X., may only be used at licensee's facilities, Princeton House, 905 Herrontown Road, Princeton, New Jersey.

E. Licensed material in Items 6.R. through 6.X., may be used only at the licensee's facilities at 675 College Road East, Princeton Forrestal Center, Plainsboro, New Jersey.

11. A. Licensed material shall be used by, or under the supervision of, individuals designated by the licensee's Radiation Safety Committee.

B. The Radiation Safety Officer for this license is Daniel K. Balkunow.

12. This license does not authorized commercial distribution of licensed material to persons generally licensed pursuant to 10 CFR 31 or to persons exempt from licensing pursuant to 10 CFR 30.18.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number 29-00139-02

Docket or Reference number 030-05222

Amendment No. 86

(Continued) CONDITIONS

13. The licensee shall not use licensed material in or on human beings or in field applications where activity is released except as provided otherwise by specific condition of this license.

14. Experimental animals administered licensed materials or their products shall not be used for human consumption.

15. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed 3 years.

B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.

C. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.

D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.

E. Sealed sources and detector cells need not be leak tested if:

(i) they contain only hydrogen 3; or

(ii) they contain only a gas; or

(iii) the half-life of the isotope is 30 days or less; or

(iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or

(v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transfer to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
29-00139-02

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(15. Continued) CONDITIONS

F. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source involved, the test results, and corrective action taken.

G. The licensee is authorized to collect leak test samples for analysis by the licensee. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.

16. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in 10 CFR 20.203(a)(1), the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols.

17. Detector cells containing a titanium tritide foil or a scandium tritride foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding that specified by the manufacturer.

18. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory.

19. The licensee shall not acquire licensed material in a sealed source or in a device that contains a sealed source unless the source or device has been registered with the Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State.

20. The licensee may transport licensed material in accordance with the provisions of 10 CFR 71, "Packaging and Transportation of Radioactive Material."

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
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(Continued) CONDITIONS

21. The licensee shall maintain and execute the response measure of his Radiological Emergency Contingency Plan submitted to the Commission on March 28, 1990. The licensee shall also maintain procedures as necessary to implement the plan. The licensee shall make no change in his Radiological Emergency Contingency Plan that would decrease the response effectiveness of the plan without prior Commission approval as evidenced by license amendment. The licensee may make changes to his Radiological Emergency Contingency Plan without prior Commission approval if the changes do not decrease the response effectiveness of the plan, and shall maintain records of changes that are made to the plan without prior approval for period of two years from the date of the changes and shall furnish the Chief, Nuclear Materials Safety Branch, Division of Radiation Safety and Safeguards, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406, a report containing a description of each change within six months after the change is made.

22. The licensee is authorized to hold radioactive material with a physical half-life of less than 65 days and sulfur-35, scandium-46, strontium-85, and tin-113 for decay-in-storage before disposal in ordinary trash provided:

A. Radioactive waste to be disposed of in this manner shall be held for decay a minimum of 10 half-lives.

B. Before disposal as normal waste, radioactive waste shall be surveyed to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.

23. Radioactive waste generated under this license shall be stored in accordance with the statements, representations, and procedures included with the licensee's waste storage plan described in the licensee's letter/application dated October 30, 1992.

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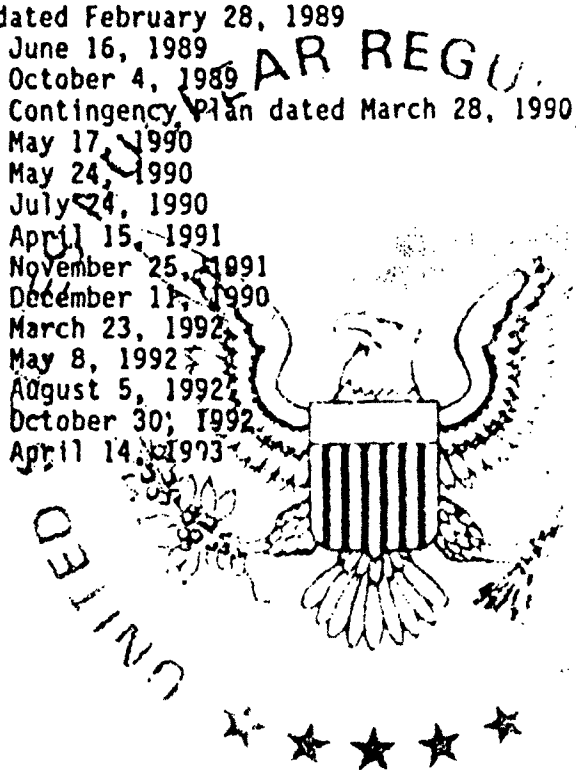
MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number 29-00139-02
Docket or Reference number 030-05222
Amendment No. 86

(Continued) CONDITIONS

24. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A. Application dated February 28, 1989
B. Letter dated June 16, 1989
C. Letter dated October 4, 1989
D. Radiological Contingency Plan dated March 28, 1990
E. Letter dated May 17, 1990
F. Letter dated May 24, 1990
G. Letter dated July 24, 1990
H. Letter dated April 15, 1991
I. Letter dated November 25, 1991
J. Letter dated December 11, 1990
K. Letter dated March 23, 1992
L. Letter dated May 8, 1992
M. Letter dated August 5, 1992
N. Letter dated October 30, 1992
O. Letter dated April 14, 1993



For the U.S. Nuclear Regulatory Commission

Date MAY 25 1993

By Original Signed By:
Elizabeth Ullrich
Nuclear Materials Safety Branch
Region I
King of Prussia, Pennsylvania 19406

NOTE TO DMB:

THE ATTACHED DOCUMENTS ARE TO BE PROCESSED AS ONE MATERIALS LICENSING PACKAGE.

LICENSE NUMBER: 29-00139-02

DOCKET NUMBER: 030-05222

CONTROL NUMBER: 117399

THIS SHEET MAY BE DISCARDED AFTER PROCESSING.

THANK YOU!

190090

MAY 2 5 1993

License No. 29-00139-02
Docket No. 030-05222
Control No. 117399

E. R. Squibb & Sons, Inc.
ATTN: Daniel K. Balkunow
Radiation Safety Officer
One Squibb Dr., P.O. Box 191
New Brunswick, New Jersey 08903-0191

Dear Mr. Balkunow:

Please find enclosed an amendment to your NRC Material License.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the Region I Material Licensing Section, (215) 337-5093, so that we can provide appropriate corrections and answers.

Please be advised that you must conduct your program involving licensed radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, please note the items in the enclosed, "Requirements for Materials Licensees."

The information provided in your letter dated April 14, 1993 is included with this amendment. However, changes in the individual members of the Radiation Safety Committee may be made without amending your license, as long as the individuals are qualified to represent their respective department.

Since serious consequences to employees and the public can result from failure to comply with NRC requirements, the NRC expects licensees to pay meticulous attention to detail and to achieve the high standard of compliance which the NRC expects of its licensees.

You will be periodically inspected by NRC. A fee may be charged for inspections in accordance with 10 CFR Part 170. Failure to conduct your program safely and in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in prompt and vigorous enforcement action against you. This could include issuance of a notice of

violation, or in case of serious violations, an imposition of a civil penalty or an order suspending, modifying or revoking your license as specified in the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C.

We wish you success in operating a safe and effective licensed program.

Sincerely,

Original Signed By:
Elizabeth Ullrich

Elizabeth Ullrich
Senior Health Physicist
Nuclear Materials Safety Branch
Division of Radiation Safety
and Safeguards

Enclosures:
1. Amendment No 86
2. Requirements for Materials Licensees
3. NRC Forms 3 and 313
4. 10 CFR Parts 2, 19, 20, 21, 30 and 170

DRSS:RI
Dimitriadis/mlb
5/3/93

DRSS:RI
Ullrich
5/4/93

OFFICIAL RECORD COPY - G:\WPS\MLTR\L2900139.02 - 04/28/93

030-05222

Bristol-Myers Squibb Company
Pharmaceutical Group Technical Operations
One Squibb Drive P.O. Box 191 New Brunswick, NJ 08903-0191 201 519 2000

April 14, 1993

Ms. E. Ullrich
Nuclear Materials Safety Section B
Division of Radiation Safety and Safeguards
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

RE: LICENSE AMENDMENT
LICENSE #29-00139-02

Dear Ms. Ullrich:

This is a request to amend the byproduct material license (#29-00139-02) of E. R. Squibb & Sons, Inc., a wholly-owned subsidiary of the Bristol-Myers Squibb Company, to reflect the following changes:

- **Changes in the Licensee's Radiation Safety Committee Membership**
  - Mr. Ralph del Campo is no longer a member of the Radiation Safety Committee.
  - Mr. William Gaylord is no longer a member of the Radiation Safety Committee.
  - Mr. W. Graham Nicholl is a new member of the Radiation Safety Committee.

Attached is a copy of Mr. Nicholl's résumé and a check for $250.00 to cover the cost of processing the amendment.

Sincerely,

Daniel K. Balkunow
Radiation Safety Officer

DKB:bl

Attachments (2)

License Fee Information
dtd 10/30/92
letter

cc: W. G. Nicholl
RSC - circulation only

117399
APR 16 1993

OFFICIAL RECORD COPY ML 10

W. Graham Nicholl
c/o Bristol-Myers Squibb Company
Rt. 206 & Province Line Road
Princeton, New Jersey 08540
Phone: (609) 252-5340
Fax: (609) 252-3548

EDUCATION:

(b)(6)

B.Sc. Honors Microbiology
University of Cardiff, South Wales, U.K.

Majored in the following:

Microbiology - 3 years
Biochemistry - 2 years
Chemistry - 1 year

CURRENT AND PRIOR POSITIONS:

1992-Present — **Director, Environmental, Health & Safety**
Bristol-Myers Squibb Pharmaceutical Group
Rt. 206 & Province Line Road, Princeton, New Jersey, USA
Responsible for directing Environmental, Health & Safety programs for the Pharmaceutical Research Institute and Facilities on a worldwide basis.

1990-1992 — **Director, Environmental Affairs**
Bristol-Myers Squibb Pharmaceutical Group
2365 Cote de Liesse, Montreal, Quebec, Canada
Provide Company direction for the merger process and institution of environmental, occupational health, safety, worker's compensation and employee wellness programs for 7 Divisions at 6 locations.

1896-1990 — **Director, Occupational Health, Safety & Environment**
Bristol-Myers Pharmaceutical Group
231 Dundas Street, East Belleville, Ontario, Canada
Direction as above or 3 Divisions at three locations.

1982-1986 — **Plant Manager**
BMPG Mead Johnson Canada, Belleville
Responsible for Operations, Human Resources and Maintenance for the manufacture and packaging of liquid and powder infant and adult formulations.

1977-1982 — **Production Manager**
BMPG Mead Johnson Canada, Belleville
Responsible for departmental operations of a nutritional liquid, powder and cereal bottling, manufacturing and packaging facility.

1976-1977	**Development Manager** Ross Division Abbott Laboratories, Decarie Blvd. Montreal, Canada Technical Liaison between Marketing, Product Development and Manufacturing for new product introductions into Canada from Ross Labs. Chicago USA.
1972-1976	**Department Manager** Abbott Laboratories, Decarie Boulevard, Montreal, Canada Sterile manufacture and packaging of intravenous solution in glass bottles. Started the conversion process into plastic bags.
1970-1972	**Development Executive** Roussell Laboratories, Swindon, England Development of product and equipment to manufacture pharmaceutical products (tablets, creams, sterile solutions, ointments and suppositories.) Required overseas travel to Germany and Italy.
1965-1966	**Fermentation Executive** Dista Products, Eli Lilly, Liverpool, England Fermentation development of antibodies.

SOCIETY/COMMITTEE MEMBERSHIP

1986-Present	**BMS Corporate Environment Committee** New York. Sept. 91. Speaker program chairman for Corporate Conference Washington. 200 Employees.
	BMS Occupational Health and Safety Committee New York
	BMS International Environmental Committee
1980-Present	**Pharmaceutical Manufacturers Association of Canada** Participating Member
1983-1991	**Industrial Accident Prevention Association** Section Chairman, Prince Edwards Hastings. Divisional Chairman, Heritage Division. 921 Companies and 36,000 employees in Ontario, Canada.
1979-1990	**Quinte District Management Association** Major employers' forum for General Managers to address mutual concerns and issues requiring group action at local or Provincial level.
1980-1990	**Member of Belleville Chamber of Commerce**
1978-1988	**Professional Member of International Food Technologists**

CONVERSATION RECORD

TIME 5:15pm. DATE 4/8/93.

TYPE ☐ VISIT ☐ CONFERENCE ☑ TELEPHONE ☐ INCOMING ☑ OUTGOING

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU	ORGANIZATION (Office, dept., bureau, etc.)	TELEPHONE NO:
Larry Gaines	E.R. SQUIBB.	908-519-3721

SUBJECT Amendment Request for Interim Storage

ROUTING	
NAME/SYMBOL	INT

SUMMARY Some Questions [redacted]

(Q1) How often are you going to inspect the LLW packages?
(A1) Quarterly, the staff will do a walk thru to check if container integrity is intact; if the labels are intact, etc.

(A2)
(Q2) The licensee wishes to have the option of sending their LL waste to SEG for incineration. At some point, SEG (or any authorized broker) will return the ash per DOT transportation regs.

ACTION REQUIRED

None

NAME OF PERSON DOCUMENTING CONVERSATION	SIGNATURE	DATE
1 DIMITRIADIS.	[signature]	4/8/93.

ACTION TAKEN

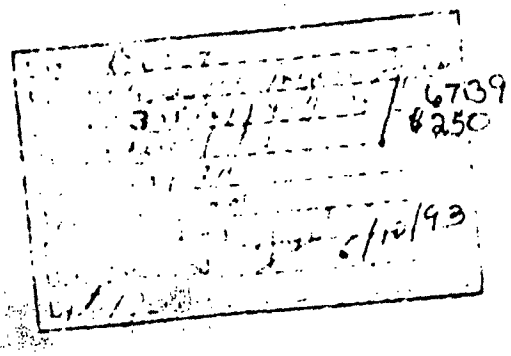
SIGNATURE	TITLE	DATE

Bristol-Myers Squibb Company
Pharmaceutical Group Technical Operations
One Squibb Drive PO Box 191 New Brunswick, NJ 08903-0191 201-519-2000

030-05222

October 30, 1992

Ms. E. Ullrich
Nuclear Materials Safety Section B
Division of Radiation Safety and Safeguards
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406



RE: LICENSE AMENDMENT
LICENSE #29-00139-02

Dear Ms. Ullrich:

This is a request to amend the material license (#29-00139-02) of E. R. Squibb & Sons, Inc., a wholly-owned subsidiary of the Bristol-Myers Squibb Company, to include the following:

1. An Increase in Possession Limits

   A. A possession limit increase for the following radionuclides will be required for the licensed facility located at One Squibb Drive, New Brunswick, New Jersey:

      - Carbon 14 in any form to 20 Curies
      - Tritium in any form to 20 Curies
      - Sulfur 35 in any form to 10 Curies

   B. Fifty (50) Curies of Molybdenum 99/Technetium 99m in any form for the facility located at Rt. 206 and Provinceline Road, Lawrenceville, New Jersey.

   All radionuclides indicated above will be used in non-human research & development studies.

2. Addition of Radionuclides

   Ten (10) microcuries of Strontium 90 (Sr^{90}) in any form is required for use in calibrating instruments. This material will be used at the licensed facility at One Squibb Drive, New Brunswick, New Jersey.

3. Authorization to Store Low-Level Radioactive Waste During the Extended Interim Storage Period in Building 81

Included herein is the information necessary for your evaluation and approval of the storage of low-level radioactive waste during the extended interim storage period:

A. Identification of Waste to be Stored

1) It is estimated that approximately 15,839 ft^3 of low-level radioactive waste will be stored by the licensee during extended interim storage.

2) The maximum activity to be stored is estimated to be 20.5 Curies.

3) The estimated activity will include but not be limited to the following radionuclides:

Nuclide	Activity
^{14}C	5.7 Ci
^{3}H	3.0 Ci
^{141}Ce	0.1 Ci
^{51}Cr	0.1 Ci
^{45}Sc	0.1 Ci
^{85}Sr	0.1 Ci
^{113}Sn	0.1 Ci
^{57}Co	0.1 Ci
^{153}Gd	0.5 Ci
^{35}S	0.5 Ci
^{125}I	0.2 Ci

Radionuclides with atomic numbers 1-83 will also be stored in activities that are estimated to be 10.0 Curies.

B. Characteristics of Waste to be Stored

1) All low-level radioactive waste stored during the extended interim storage period will be Class A unstable.

2) The primary physical waste form to be held during the extended interim storage period will be dry solids. Solidified liquids and mixed (hazardous/radioactive) waste in small quantities will also be stored. A designated freezer area will be used for the storage of containers of animal tissues. All of the waste forms will be packaged in strong, tight containers.

3) Compaction will be performed to reduce the volume of dry solid materials. In addition, storage and decay of dry solids will be employed. Non-organic aqueous liquids will be solidified before they are stored.

4) The facility will house mixed (hazardous and radioactive) waste.

5) Air permits for the extended interim storage facility Bldg. 81 have been applied for, but not yet obtained.

C. Plans for Final Storage

1) Pending the decision of the Southeast Compact Commission to accept low-level radioactive waste from out of-region generators, on-site storage will begin either January 1, 1993 or July 1, 1994.

2) The licensee is expected to ultimately dispose of its low-level radioactive waste in the Northeast Compact disposal facility. It is projected that this facility will be located in New Jersey and be operational by the year 2000.

3) The licensee expects to commence shipping low-level radioactive waste to the Northeast Compact facility as soon as it is authorized to accept waste from generators. The time required for the licensee to dispose of its estimated storage inventory varies. Every effort will be made to reduce storage inventory as soon as practical.

D. Physical Description of Storage Area

1) The Bristol-Myers Squibb low-level radioactive waste storage facility will be located in a 14,000 square foot building on the New Brunswick site. This facility has the capability of being expanded if additional space is needed. The attached New Brunswick Bristol-Myers Squibb site plan will show the location of Bldg. 81 low-level radioactive waste storage facility.

The licensee will renovate an existing one-story structure, Bldg. 81, to include storage areas for use as follows:

a) Dry waste storage
b) Solidified liquid storage
c) Animal waste refrigerated freezer storage
d) Mixed waste storage
e) In-drum waste compactor and process
f) Effluent HEPA/carbon filter locations
g) 22 air sampling stations

2) Initially the Bldg. 81 low-level radioactive waste storage facility will be designed to provide approximately a 3-year storage capacity. This will enable Bristol-Myers Squibb to house approximately 1,675 drums of low-level radioactive waste in various categories during this time frame.

The licensee may expand the facility as additional storage space is warranted. It is anticipated that Bristol-Myers Squibb will store a maximum volume of 15,389 ft^3 of low-level radioactive waste through the year 2000. The estimated annual volume generated is believed to be 2,901 ft^3.

3) An existing fully insulated metal Butler-type structure will be renovated and designed to meet all the NRC Policy 90-09 requirements for low-level radioactive waste storage. The 14,000 square feet structure is heated, has reinforced concrete floor slab and an insulated metal roof and siding. It will be provided with the following to assure low-level radioactive waste containment:

a) A perimeter containment concrete curb to contain any spilled liquids and fire sprinkler water within the building
b) Patched concrete floor slab that have been epoxy sealed to eliminate cracks and porosity
c) Concrete masonry interior partition walls

4) Personnel and materials access into the building shall be provided with magnetic card personnel access system. All doors will be properly identified with appropriate radiation decals.

All entrances and emergency doors will be provided with alarms. Alarms during off-hours will be reporting to the in plant Security department. In addition, this facility will be off limits to all, except authorized personnel.

5) The low-level radioactive waste storage HVAC ventilation and air distribution system will be designed and incorporated into the building's heating and air condition systems.

a) A recirculated air distribution system with a 20-30% fresh air makeup will service the dry and liquid container storage areas. The return air will pass through a HEPA/charcoal recirculation filter unit prior to dehumidification cooling or heating. The air handling system will be designed to supply and circulate 100% fresh air on demand.
b) Once-through ventilated air will be supplied to the mixed waste storage area. Its return air will be directly exhausted through a HEPA/charcoal filter unit.
c) The waste compaction and office areas will be supplied with once-through fresh ventilated and cooling air from a separate air handling unit. The return air will be exhausted or vented to the outside through a HEPA/charcoal filter module.
d) Air flow control and metering instruments will be installed to measure and maintain adequate HVAC air flow and ventilation requirements in the storage area.

6) The fire protection and suppression system will be designed and installed as follows:

   a) The low-level radioactive waste storage area will be protected with an overhead fire sprinkler system or as specified by the licensee's insurer. The sprinkler system will comply with all requirements of NFPA, local code requirements and the insuring agent.
   b) The dry waste in-drum compaction area will be protected with a fire water sprinkler system or an equivalent system that complies with NFPA, local code requirements and the insuring agent.
   c) Fire detection sensors will be installed in selected areas of the low-level radioactive waste building and will be reporting to the New Brunswick central in-plant fire alarm panel.
   d) A fire water perimeter concrete curb will be installed around the low-level radioactive waste storage area to contain contaminated fire water from draining out of the building.

7) The facility's mechanical and HVAC system shall be designed to provide uniform temperature and humidity ranges with adequate ventilated air to avoid subjecting waste containers to extreme temperatures. Design and installation of the building's mechanical and HVAC systems will be such that the storage areas are provided with a year-round central refrigerated air conditioning and heating system. The HVAC system will be designed to maintain a summer condition of 78°F at 55% to 60% relative humidity range and a winter heating design condition of 55°F at ambient relative humidity range. There will be no provisions for installing humidification units. The storage ventilation and air circulation rates shall be in accordance with BOCA and AHRAE codes to inhibit metal container external surface corrosion.

   Animal waste will be stored in a refrigerated walk-in freezer storage unit. Waste containers will be stacked in a pallet rack system to provide easy accessibility for inspection.

   A separated mixed low-level radioactive/hazardous waste storage area will be designed and constructed to meet RCRA requirements.

8) The location of the extended storage facility does not lend itself to extreme risk to such hazards as hurricanes, tornadoes, floods or industrial accidents.

E. Packaging and Container Integrity

1) Low-level radioactive waste shall be packaged in strong, tight containers so there will be no leakage of radioactive materials under conditions normally incident to transportation and storage. These containers will be compatible to the waste material being stored and should not have an effect on the container's integrity. It is projected that the storage life of the container will be at least 15 years.

2) Routine inspections of low-level radioactive waste packages will be performed to ensure that they retain their integrity and containment of radioactive waste.

3) Mechanical and/or electrical lifting equipment will be available for stacking drums in storage racks. Any damaged or leaking waste containers will be repacked in an isolated area using protective equipment and guidelines that are conducive to such operation.

F. Radiation Protection

1) Radioactive containers will be stored on pallet racks that are separated by sufficient aisle space to allow easy direct inspection on a routine basis. Since the primary radionuclides that will be stored in the facility will be low energy beta emitters, storage containers will provide the shielding necessary to minimize personnel radiation exposures. Additional shielding will be used if necessary to maintain occupational exposures ALARA, but the need is not anticipated. The licensee will post the storage area in accordance with 10CFR20.203, as well as perform on a periodic basis radiation and contamination surveys of the storage area and individual packages and/or containers.

2) It can reasonably be projected that exposure rates for the majority of the packages stored by the licensee during interim storage will be in accordance with the labelling requirements for radioactive White I.

The existing method used for monitoring personnel exposures and Bristol-Myers Squibb's radiation protection program will not be changed or degraded as a result of waste storage.

3) Emergency response will be performed in accordance with the licensee's Radiological Contingency Plan dated March 28, 1990.

4) Records of waste in storage will be maintained in a manner similar to our existing inventory procedures. Specifically, all waste receipts will be recorded according to category, radionuclides, activity and date of receipt.

Containers will be placed in designated storage locations and their activities adjusted monthly or at some stated frequency for decay. Any waste removed from the facility will be subtracted from the inventory records.

G. Training

All occupational workers assigned to the interim storage facility will receive instructions in the packaging, handling and inspection of radioactive waste. In addition survey techniques and emergency response training will be provided. Refresher training will be provided every two years.

H. Financial Assurance

Certification of Financial Assurance for License #29-00139-02 is outlined in the letter dated October 13, 1992, from Robert E. Ewers, Jr. to Francis M. Costello.

I. Emergency Preparedness

Emergency response measures will be in accordance with the licensee's Radiological Contingency Plan dated March 28, 1990.

4. **Authorization to Accept and Store the Licensee's Waste From a Licensed Broker/Processor After Being Processed**

Permission is requested to accept and store the licensee's radioactive waste from processors/broker. This returned waste from processors will be housed in the interim storage facility Bldg. 81. Possession limits for the New Brunswick site will be sufficient to allow the acceptance of and storage of processed waste.

October 30, 1992

4. Authorization for the Licensee to Utilize Other Accredited Personnel Radiation Dosimetry Processing Services

Permission is requested by the licensee to utilize other NVLAP approved personnel radiation dosimetry processing services. Currently Bristol-Myers Squibb's personnel dosimetry contractor is:

Siemens Gammasonics, Inc.
Health Physics Services
2501 Barrington Road
Hoffman Estates, IL 60195-7372

We wish to use other NVLAP approved contractors for dosimetry services.

Included is a check for $230.00 to cover the cost of processing the amendment. I trust that this information is in sufficient detail for the commission to approve this request. If additional information is needed, please do not hesitate to contact me at 908-519-3721.

Sincerely,

Larry Gaines
General Supervisor
Health Physics Department

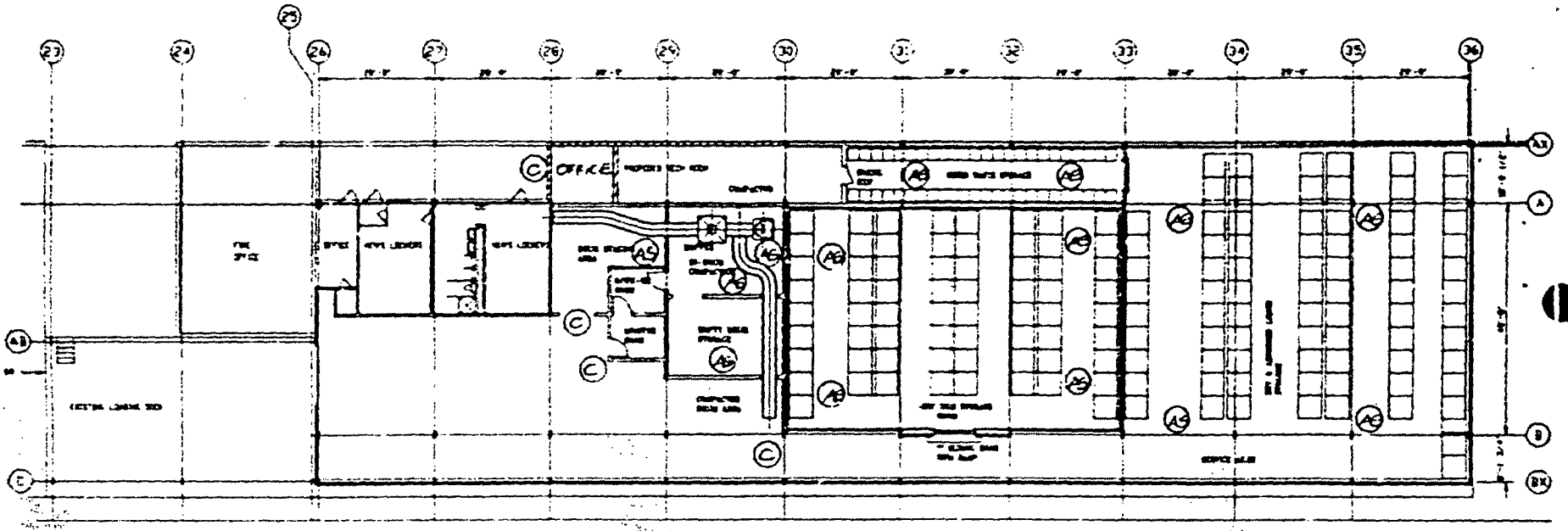
LG:bl

Enclosure

cc: Mr. J. P. Grosh
RSC

RADIATION SAFETY COMMITTEE

Mr. D. K. Balkunow
Mr. R. del Campo
Mr. R. Endries
Mr. D. Fritzsche
Mr. W. Gaylord
Dr. C. Leopold
Dr. H. W. Strauss
Mr. G. Thompson
Ms. C. Tuday
Ms. S. Voigt
Dr. F. Yost



BUILDING 81
PROPOSED FLOOR PLAN

LEGEND

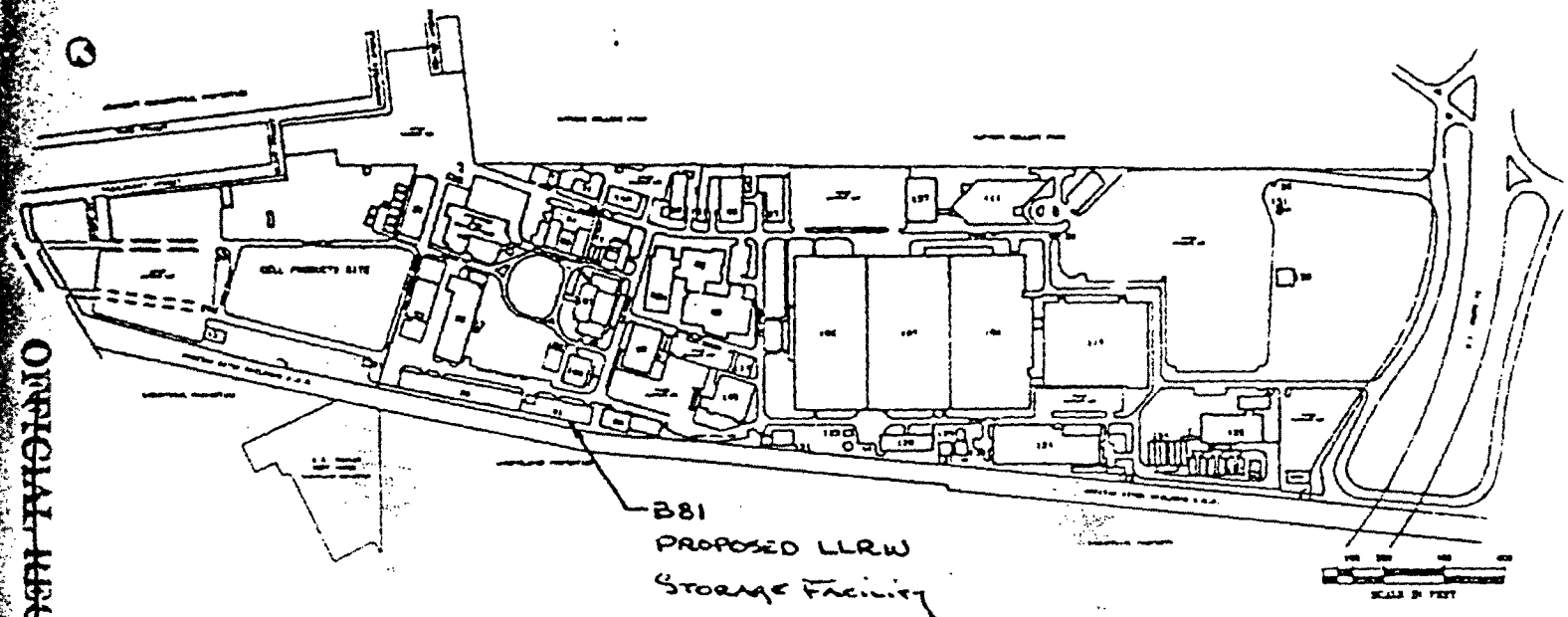
(C) CARD ACCESS DOOR

(AS) AIR SAMPLING PT

BUILDING 81
BUILDING SECTION

DESIGN + DATA PC

BUILDING 81 RENOVATION



PLANT SITE PLAN
NEW BRUNSWICK FACILITY

CH1181

EXHIBIT VII
Page 16

DEC 18 1992

Bristol-Myers Squibb Co.
dba E.R. Squibb and Sons, Inc.
ATTN: Larry Gaines, General Supervisor
Health Physics Dept.
One Squibb Drive
P.O. Box 191
New Brunswick, NJ 08903-0191

Gentlemen:

This refers to your letter dated October 30, 1992, for an amendment to Materials License 29-00139-02, for E. R. Squibb & Sons, Inc..

We received your check for $230. Your request, however, is subject to a renewal fee of $250 as specified in fee Category 3A of §170.31, 10 CFR 170, which went into effect August 24, 1992. A copy of the July 23, 1992, Federal Register notice regarding the revisions to the Commission's license and annual fee regulations (10 CFR 170 and 10 CFR 171) is enclosed.

Please note that effective August 24, 1992, materials licensees are also subject to the annual fees specified in revised 10 CFR 171. Payment of the additional $20 fee should be made to the U.S. Nuclear Regulatory Commission and mailed to the following address:

U.S. Nuclear Regulatory Commission
ATTN: Sandra Kimberley
License Fee and Debt Collection Branch, OC/DAF
Mail Stop MNBB 4503
Washington, DC 20555

Your application will be processed by the Region I Licensing staff located at 475 Allendale Road, King of Prussia, Pennsylvania 19406. The fee, however, is required prior to issuance of the amendment. When submitting the additional fee, please refer to CONTROL NUMBER 117399.

If we do not receive a reply from you within 30 calendar days from the date of this letter, we shall assume that you do not wish to pursue your application and will void this action.

Sincerely,

/s/

Sandra Kimberley
License Fee and Debt Collection Branch
Division of Accounting and Finance
Office of the Controller

Enclosure:
July 23, 1992, Federal Register notice

cc: Region I

DISTRIBUTION
Pending Fee File
OC/DAF R/F
LFDCB R/F (2)

OFFICE:	OC/LFDCB	OC/LFDCB	OC/LFDCB
NAME:	BBrown:ab	SKimberley	MMessler
DATE:	12/16/92	12/17/92	12/17/92

19\B:ADD-6.mer

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 03211
STATUS CODE: 0
FEE CATEGORY: 3A
EXP. DATE: 19970430
FEE COMMENTS:
DECOM FIN ASSUR REQD: Y

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: E. R. SQUIBB & SONS, INC.
RECEIVED DATE: 921105
DOCKET NO: 3005222
CONTROL NO.: 117399
LICENSE NO.: 29-00139-02
ACTION TYPE: AMENDMENT

2. FEE ATTACHED
AMOUNT: #230.00
CHECK NO.: 358269

3. COMMENTS

SIGNED Rebecca J. Brown
DATE 11/9/92

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED /✓/)

1. FEE CATEGORY AND AMOUNT: 3A

2. CORRECT FEE PAID/ APPLICATION MAY BE PROCESSED FOR:
AMENDMENT ----------
RENEWAL ----------
LICENSE ----------

3. OTHER ----------

SIGNED ----------
DATE ----------