

MATERIALS LICENSE

Amendment No. 05

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, 36, 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.

OFFICIAL RECORD COPY

<p>Licensee</p> <p>1. Nucletron Corporation</p> <p>2. 7080 Columbia Gateway Drive Columbia, Maryland 21046-2133</p>		<p>In accordance with the letter dated January 13, 1997, 3. License Number 19-28772-01 is amended in its entirety to read as follows:</p>	
		<p>4. Expiration Date March 31, 2003</p>	
		<p>5. Docket or Reference No. 030-32842</p>	
<p>6. Byproduct, Source, and/or Special Nuclear Material</p> <p>A. Iridium 192</p> <p>B. Cesium 137</p> <p>C. Cobalt 60</p>	<p>7. Chemical and/or Physical Form</p> <p>A. Sealed sources (Byk Mallinckrodt Model CI-L-BV and BV Mallinckrodt Model CI-2)</p> <p>B. Sealed sources (Amersham Model CDC.SP1 and CDC K series)</p> <p>C. Sealed sources (Amersham Model CDC.SP1)</p>	<p>8. Maximum Amount that Licensee May Possess at Any One Time Under This License</p> <p>A. Not applicable</p> <p>B. Not applicable</p> <p>C. Not applicable</p>	
<p>9. Authorized use</p> <p>A. For possession incident to the installation, maintenance, repair, and source exchange of Nucletron MicroSelectron-HDR and MicroSelectron-PDR remote afterloading devices.</p> <p>B. For possession incident to the installation, maintenance, repair and source exchange of Nucletron MicroSelectron-LDR and Selectron-LDR remote afterloading devices.</p> <p>C. For possession incident to the installation, maintenance, repair and source exchange of Nucletron Selectron-HDR remote afterloading devices.</p>			

CONDITIONS

10. Licensed material may be used only at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.
11. A. Licensed material shall be used by, or under the supervision of, Hal Archibald, Jim Cowan, G. Kagan Ertugrul, Dave Glessner, Charles Hicks, Mark Irvin, Chuck Jones, Perry Koonce, E.J. Kromhout van der Meer, Brent Loudy, C. Mellink, Chris Scott, Jason Shirdon, M. Slot, Arno Rood, G.J. ten Brinke, Chuck Tow, Larry Vincent, A. Casey Valentine, Alan Taylor, James T. Coyle, David Kuligowski, Ralph E. Shuping and James Wilson.
- B. The Radiation Safety Officer for this license is Ovilla J. Dionne, Jr.

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PDR ADOCK 03032842
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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

19-28772-01

Docket or Reference Number

030-32842

Amendment No. 05

12. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders or detector cells by the licensee.
13. A. Sealed sources and detector cells containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three 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 three months.
- C. In the absence of a certificate from a transferor indicating that a leak 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 radioactive 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.
- F. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. 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 or detector cell shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five 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 or detector cell involved, the test results, and corrective action taken.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

19-28772-01

Docket or Reference Number

030-32842

Amendment No. 05

- G. The licensee is authorized to collect leak test samples for analysis by RSO, Inc. 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.
14. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d), 40.36(b), and 70.25(d) for establishing financial assurance for decommissioning.
15. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
16. 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 July 3, 1992
 - B. Letter dated October 12, 1992
 - C. Letter dated December 2, 1992
 - D. Letter dated January 12, 1993
 - E. Letter dated February 24, 1993
 - F. Letter dated March 1, 1993
 - G. Letter dated July 11, 1994
 - H. Letter dated September 21, 1994
 - I. Letter dated January 4, 1996
 - J. Letter dated June 17, 1996
 - K. Letter dated January 13, 1997
 - L. Facsimile dated February 4, 1997
 - M. Facsimile dated February 5, 1997

For the U.S. Nuclear Regulatory Commission

Original Signed By:
Duncan White

By

Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406

FEB 12 1997

Date _____

FEB 12 1997

Beth LeQuin
President
Nucletron Corporation
7080 Columbia Gateway Drive
Columbia, Maryland 21046-2133

Dear Ms. LeQuin:

This refers to your license amendment request. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Thank you for your cooperation.

Sincerely,

Original Signed By:
Duncan White

Duncan White
Division of Nuclear Materials Safety

License No. 19-28772-01
Docket No. 030-32842
Control No. 124124

Enclosure:
Amendment No. 05

DOCUMENT NAME: R:\WPS\MLTR\L1928772.01

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DNMS/RI	N	DNMS/RI				
NAME	DWhite						
DATE	02/05/97	02/ /97	02/ /97	02/ /97	02/ /97	02/ /97	02/ /97

OFFICIAL RECORD COPY

ML 10



Nucletron

FAX

Nucletron Corporation
7030 Columbia Gateway Drive
Columbia, MD 21046-2133
410-312-4100
Fax 410-312-4199
<http://www.nucletron.com>

DATE: February 5, 1997

TO: Mr. Duncan White
NRC

FROM: Miguelina Nieves
Nucletron Corp.

SUBJECT: Additional Training Certificates Requested

Total Pages (including cover sheet) = 5

Enclosed, please find the additional Equipment Training Certificates requested for the 4 Engineers to be added to our NRC Amendment request. Our assigned mail control # is 124124.

If you you have any questions, please feel free to contact me at 410-872-4445 and our fax number is 410-312-4197.

Thank you very much

OFFICIAL RECORD COPY

ML 10

124124
FEB - 6 1997



Nucletron

TRAINING CERTIFICATE

given to

Alan G. Taylor

(Nucletron Corporation, Columbia, U.S.A.)

for attending the following

microSelectron HDR
Technical Training Course

course date

23-27 SEPTEMBER 1996

Nucletron B.V.

Veenendaal

The Netherlands

E.J. Kromhout van der Meer
Instructor

J.A. Galesloot
Service Manager



Nucletron

This certifies that

James T. Coyle

has successfully completed the

microSelectron HDR Training Course

given the 27th through the 31st days of January, 1997

*at Nucletron Corporation
Columbia, MD*

Chuck Tow

Chuck Tow
Instructor, Technical Support



Nucletron

This certifies that

David Kuligowski

has successfully completed the

microSelectron HDR Training Course

given the 27th through the 31st days of January, 1997

*at Nucletron Corporation
Columbia, MD*

Chuck Tow

Chuck Tow
Instructor, Technical Support



Nucletron

This certifies that

James Wilson

has successfully completed the

microSelectron HDR Training Course

given the 27th through the 31st days of January, 1997

*at Nucletron Corporation
Columbia, MD*

Chuck Tow

Chuck Tow
Instructor, Technical Support



Radiation Safety Officer
Nucletron

Nucletron Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133
410-312-4100
Fax 410-312-4199
<http://www.nucletron.com>

FAX

DATE: February 4, 1997

TO: Mr. Duncan White
NRC

FROM: Miguelina Nieves
Nucletron Corp.

SUBJECT: Addition to our NRC Amendment Request

Total Pages (including cover sheet) = 3

I would like to request the addition of another Engineers - James Wilson, to our NRC License Amendment request mailed January 13, 1997. Our assigned mail control # is 124124.

Enclosed please find a copy of Mr. Wilson's Radiation Training Certificate and a copy of the Amendment Request letter mailed out January 13, 1997 with Mr. Wilson's name added to it.

If you you have any questions, please feel free to contact me at 410-872-4445 and our fax number is 410-312-4197.

Thank you very much

OFFICIAL RECORD COPY

ML 10

124124

FEB - 6 1997



Nucletron

Training Certificate

given to:

James Wilson

for having completed the following training course:

Radiation Safety Procedures for Source Handlers

Course Date: December 13, 1996

Ralph Shuping, Sc.D.
Instructor/ Regulatory Affairs Manager

Ovila J. Dionne, Jr.,
Radiation Safety Officer



Nucletron

Nucletron Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133
410-312-4100
Fax 410-312-4103
<http://www.nucletron.com>

January 13, 1997

Mr. John R. McGrath
Nuclear Materials Safety Branch
U.S. NRC Region 1
475 Allendale Road
King of Prussia, PA 19406-1415

030-32842

**REFERENCE: Amendment Request for NRC Radioactive Materials License
No. 19-28772-01**

Dear Mr. McGrath:

Nucletron Corporation wishes to Amend its' NRC Radioactive Materials License
No.19-28772-01 with the following changes:

Condition No. 11A: Please remove the following name from our License.
Mike Cierniak

Please add the following names to our License.
Alan Taylor
James T. Coyle
David Kuligowski
Ralph E. Shuping

Enclosed is a copy of Nucletron's amended Maryland Radioactive Materials License
No. MD-27-35-01 reflecting this change, along with a check in the amount of \$ 590.00
to cover the cost of amendment fees. Attached also find the training certificates for the
additional 4 engineers, and my (Ralph Shuping's) credentials.

If any additional information is needed or if you have any questions, please contact me
directly at 410-312-4103.

Respectfully submitted,

Ralph E. Shuping

Ralph E. Shuping, Sc.D
Regulatory Affairs Manager

OFFICIAL RECORD COPY

ML 10

124124

JAN 21 1997

cc: Ovila J. Dionne, Jr.
Radiation Safety Officer



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 18

Nucletron Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133

CORRECTED COPY

In accordance with letter dated July 19, 1996, Radioactive Material License Number MD-27-035-01 is amended as follows:

Licensee's name is changed from: Nucletron-Oldelft Corporation
to: Nucletron Corporation

Change will be effective September 1, 1996.

Condition 11B to read:

11B. Radioactive material shall be used by A. Ten Brinke, Michael Cierniak, A. Casey Valentine, C. Mellink, Chuck Jones, Hal Archibald, Brent Loudy, Chris Scott, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Mark Irvin, Charles Hicks, G. Kagan Ertugrul, E.J. Kromhout van der Meer M. Slot, Jason Shirdon or Ovila J. Dionne, Jr.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date August 8, 1996

Roland G. Fletcher

RADIOLOGICAL HEALTH PROGRAM MANAGER II

NAO

CET



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 17

Nucletron-Oldelft Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133

In accordance with letter dated June 20, 1996, Radioactive Material License Number MD-27-035-01 is amended as follows:

Condition 11B to read:

11B. Radioactive material shall be used by:

Hal Archibald
*A. Ten Brinke
Michael Cierniak
James Cowan
Ovila J. Dionne, Jr.
G. Kagan Ertugrul
C. Mellink

David Glessner
Charles Hicks
Mark Irvin
Chuck Jones
Perry Koonce
Brent Loudy
C. Mellink

Chris Scott
Jason Shinton
E.J. Kromhout van der Meer M. Slot
Chuck Tow
A. Casey Valentine
Ben Vaughn
Lawrence Vincent

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date July 8, 1996

RADIOLOGICAL HEALTH PROGRAM MANAGER II

DKM *CET*



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 16

Nucletron-Oldelft Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133

In accordance with letter dated June 3, 1996, Radioactive Material License Number MD-27-035-01 is amended as follows:

Condition 11 to read:

- 11A. The radiation protection program shall be under the supervision of Ovila J. Dionne Jr.
- 11B. Radioactive material shall be used by A. Ten Brinke, C. Mellink, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Mark Irvin, Charles Hicks, C. Kagan Ertugrul, E.J. Kromhout van der Meer M. Slot, Jason Shirdon or Ovila J. Dionne, Jr.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date June 4, 1996NAO CET

Robert H. Fletcher
RADIOLOGICAL HEALTH PROGRAM MANAGER II

MDER-L1 (supp) (11/90)





DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01
Nucletron-Oldelft Corporation
7080 Columbia Gateway Drive
Columbia, Maryland 21046-2133

Amendment No. 15

In accordance with letter dated March 29, 1996, Radioactive Material License Number MD-27-035-01 is amended as follows:

Condition 14 to add letter dated March 29, 1996 outlining licensee's Corrective Action Plan and program changes.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date April 19, 1996

Robert H. Elledge

RADIOLOGICAL HEALTH PROGRAM MANAGER II

NAO *CET*

DER-L1 (supp) (11/90)





DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 14

Nucletron-Oldelft Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133

In accordance with letter dated November 2, 1995, Radioactive Material License Number MD-27-035-01 is amended as follows:

Condition 11E to read:

11B. Radioactive material shall be used by Stephen P. Teague, A. Ten Brinke, C. Mellink, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Mark Irvin, Charles Hicks, G. Kagan Ertugrul, E.J. Kromhout van der Meer M. Slot. and/or Jason Shirdon.

Condition 14 to add letter dated November 2, 1995 containing revised management structure.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date December 14, 1995



RADIOLOGICAL HEALTH PROGRAM MANAGER II

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DER-L1 (supp) (11/90)

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DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 13

Nucletron-Oldelft Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133

In accordance with letter dated January 17, 1995, Radioactive Material License Number MD-27-035-01 is amended as follows:

The licensee's name is changed from: Nucletron Corporation
to: Nucletron-Oldelft Corporation

Condition 11B, to read:

11B. Radioactive material shall be used by Stephen P. Teague, A. Ten Brinke, C. Mellink, John Harrison, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Mark Irvin, Charles Hicks, G. Kagan Ertugrul, E.J. Kromhout van der Meer and/or M. Slot.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date January 20, 1995

ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM

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ER-11 (supp) (11/90)

NO



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No.	MD-27-035-01	Amendment No.	12
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Nucletron Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133

In accordance with letter dated July 11, 1994, Radioactive Material License Number MD-27-035-01 is amended as follows:

Condition 11B, to read:

11B. Radioactive material shall be used by Stephen P. Teague, A. Ten Brinke, C. Mellink, John Harrison, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, John Conti, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Mark Irvin, Charles Hicks, G. Kagan Ertugrul, E.J. Kromhout van der Meer and/or M. Slot.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date July 14, 1994

Robert H. Fletcher
ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM

CRF

ER-L1 (supp) (11/90)



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DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01	Amendment No. 11
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cletron Corp.
60 Red Branch Road
lumbia, MD 21045

accordance with letter dated February 10, 1994, Radioactive Material License Number
-27-035-01 is amended as follows:

dition 11B. to read:

- Radioactive material shall be used by Stephen P. Teague, A. Ten Brinke, C. Mellink, John Harrison, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, John Conti, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Mark Irvin and/or Charles Hicks.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

ate February 16, 1994
RF

Poland H. Fletcher
ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01	Amendment No. 10
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Acletron Corporation
380 Columbia Gateway Drive
Columbia, MD 21046-2133

In accordance with letter dated April 15, 1993, Radioactive Material License Number MD-27-035-01 is amended as follows:

The licensee's address is changed from: 9160 Red Branch Road
Columbia, MD 21045
to: 7080 Columbia Gateway Drive
Columbia, MD 21046-2133

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

April 16, 1993

Roland H. Fletcher
ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01	Amendment No. 09
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Nucletron Corporation
160 Red Branch Road
Columbia, MD 21045

In accordance with letter dated April 1, 1993, Radioactive Material License Number MD-27-035-01 is amended as follows:

Condition 11B to read:

- B. Radioactive material shall be used by Stephen P. Teague, A. Miles Mount, L. Van Zwol, M. Cragg, A. Ten Brinke, C. Mellink, John Harrison, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, John Conti, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Bill Wimbish, T. Sackett, Mark Irvin and/or Charles Hicks.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

April 13, 1993

Roland H. Fletcher

ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 2 of 3 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 08

CONDITIONS

0. Radioactive material may be used only at temporary job sites of the licensee throughout Maryland. The licensee must notify the Radiological Health Program 30 days prior to vacating a permanent use address as is required by Section D.407 of COMAR 26.12.01.01.
- 1.A. The radiation protection program shall be under the supervision of Stephen P. Teague.
- B. Radioactive material shall be used by L. Van Zwol, M. Cragg, A. Ten Brinke, C. Mellink, A. Miles Mount, Stephen P. Teague, John Harrison, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, John Conti, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Bill Wimbish, T. Sackett and/or Mark Irvin.
1. The licensee shall comply with provisions of Part D, "Standards for Protection Against Radiation", Part G, "Use of Sealed Radioactive Sources in the Healing Arts" and Part J, "Notices, Instructions and Reports to Workers; Inspections of the Maryland Regulations 26.12.01.01 "Regulations for Control of Ionizing Radiation".
- A. The licensee shall not make any false statement, representation, or certification in any application, record, report, plan, or other document regarding radiation levels, tests performed or radiation safety conditions or practices. Nor shall the licensee falsify, tamper with, or render inaccurate any monitoring device or method.
- B. Violation of any term, condition, or regulation could subject the licensee to administrative or civil penalty or criminal prosecution, as specified in Title 8, Radiation of the Article Environment of the Annotated Code of Maryland.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 3 of 3 pages

Supplementary Sheet

License No. MD-27-035-01	Amendment No. 08
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CONDITIONS CONT'D

1. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material authorized by this license in accordance with statements, representations, and procedures contained in application dated October 27, 1992 including "Radiation Safety and Science Handling Procedures Manual", and letter dated January 12, 1993. COMAR 26.12.01.01 "Regulations for Control of Ionizing Radiation" shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

February 9, 1993

Robert H. Fletcher
ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM

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1 (supp) (11/90)

7 NAO



Nucletron

Training Certificate

given to:

James T. Coyle

for having completed the following training course:

Radiation Safety Procedures for Source Handlers

Course Date: December 12, 1996

Ralph G. Shuping

Ralph Shuping, Sc.D.
Instructor/ Regulatory Affairs Manager

Ovila J. Dionne, Jr.

Ovila J. Dionne, Jr.,
Radiation Safety Officer



Nucletron

Training Certificate

given to:

Alan G. Taylor

for having completed the following training course:

Radiation Safety Procedures for Source Handlers

Course Date: December 12, 1996

Ralph Shuping

Ralph Shuping, Sc.D.
Instructor/ Regulatory Affairs Manager

Ovila J. Dionne, Jr.

Ovila J. Dionne, Jr.,
Radiation Safety Officer



Nucletron

Training Certificate

given to:

David Kuligowski

for having completed the following training course:

Radiation Safety Procedures for Source Handlers

Course Date: December 13, 1996

Ralph Shuping, Sc.D.
Instructor/ Regulatory Affairs Manager

Ovila J. Dionne, Jr.,
Radiation Safety Officer

Ralph E. Shuping, Sc.D.

6007 Beech Avenue
Bethesda, Maryland 20817
(H) 301-530-3742

EDUCATION

D.Sc., Environmental Health Sciences (Radiological Health), Harvard School of Public Health, (HSPH), Boston, MA., 1978
M.S., Environmental Health Sciences (Medical Physics), HSPH, 1973
M.S., Physics, Emory University, Atlanta, Georgia, 1961
B.S., Physics, Math, Catawba College, Salisbury, North Carolina, 1959

EXPERIENCE

Medical Physicist/Device Reviewer
Radiology Branch, DRAERD
Office of Device Evaluation (ODE)

4/85 - present

Review engineering, scientific, and clinical data in premarket approval applications (PMAs), applications for investigational device exemptions (IDEs), premarket notifications for new devices (510ks), and reports such as establishment inspection reports (EIRs) to determine the safety and effectiveness of current state-of-the-art radiology devices (foreign and domestic) for premarket approval of medical devices or human research with new devices. Responsible for ODE reviews of draft standards pertaining to radiological devices written by industrial, federal and international standard setting bodies. Am lead reviewer of physics issues in submissions for the use of radiation to prevent restenosis following interventional intravascular procedures.

Active in international standardization activities as US Deputy Technical Advisor (DTA) for International Electrotechnical Commission (IEC) Scientific Committee 62C - Therapy. Am US liaison member to IEC 62C-WG1 - Therapy and IEC 62C - Diagnostic Imaging. Was US liaison member to IEC 62B-WG21, which developed MR safety standard IEC 601-2-33.

Active in US standards setting committees, specifically the National Electrical Manufacturers Association (NEMA) Magnetic Resonance Technical Committee developing MR performance and safety standards. CDRH liaison to the Society of Magnetic Resonance Imaging MR Safety Committee, American Association of Physicists in Medicine (AAPM) MR Committee and its task groups, and AAPM Diagnostic Radiology Committee and its task groups.

By interacting with Center for Drug Evaluation and Research (CDER) and Center for Biologics Evaluation and Research (CBER) regarding device/drug and device/biologic interactions, gained a working knowledge of CDER and CBER regulatory process. Interact with Nuclear Regulatory Commission and Environmental Protection Agency regarding radiological issues.

Am ODE technical and safety advisor to other CDRH Offices and Divisions regarding radiological devices. Answer written and verbal inquiries from manufacturers and members of the public regarding Food and Drug Administration (FDA) regulation of medical devices.

Medical Radiation Physicist
Image Analysis Section, Medical Physics Branch
DEP/BRH, Rockville, Maryland

8/74-4/85

Recipient of Commissioned Officer Award in 1979 for dedicated effort in the PHS response to the TMI nuclear emergency of March 28, 1978.

Performed studies to evaluate x-ray film-screen response to x-radiation. Evaluated a non-invasive device for determining kVp of x-ray machines. Published handbooks of mammographic and diagnostic x-ray spectra. Member of a BRH task force on evaluation and development of mammographic x-ray phantoms. Consulted with other BRH divisions, US Government agencies, and private parties regarding medical and radiological physics.

Graduate Study, Harvard School of Public Health

9/71-8/74

Developed computer simulation model to optimize dose in medical diagnostic radiology.
Developed and verified a model of the radiographic process (thesis topic).

Staff Physicist

12/65-9/71

Southeastern Radiological Health Laboratory (SERHL)
Montgomery, Alabama

Participated in 5 Apollo moon launches as a member of the SERHL off-site monitoring team. Responsible for establishment, maintenance, and operation of a portable laboratory used for evaluation of environmental samples; procurement and calibration of special detectors used to determine presence of Am241 and Pu238. Determined environmental marine radar power levels. Participated in nationwide evaluation of microwave oven leakage radiation in the southeastern states including Alabama. Participated in the Bureau of Radiological Health XES-70 study, performing tests in Minnesota, Florida, and Alabama.

Developed methodology utilizing liquid scintillation counting of dated krypton gas samples to determine Kr85 levels in the environment. This method is used at the EPA Eastern Environmental Radiation Facility (successor to SERHL) for Kr85 determinations.

Responsible for analysis of environmental samples for natural and artificially produced radioisotopes, operation of laboratory, and maintenance, calibration and QC of instrumentation.

Assigned by US Secretary of State to the Pan American Health Organization to assist Chile, Uruguay, and Ecuador establish an instrumental analysis laboratory (Chile), consult with the Ecuadorian National Laboratory Director, Dr. Parra Gil, on establishment of a radiation monitoring laboratory and network, and consult with Uruguayan Biophysics Laboratory, Institute for Biological Science Investigations personnel regarding monitoring for radionuclides.

Consultant to state radiological health personnel in the southeastern United States. Traveled to state radiological health laboratories to advise on instrument calibration, data analysis, and result interpretation.

Radiation Safety Officer
The University of Texas
Austin, Texas

8/63-12/65

Established a radiation safety office at UT while on assignment by the USPHS. Prepared a radiation safety handbook. Established a routine monitoring system for radioisotope users and a common film badge service. Administered the university-wide radioisotopes license.

Physicist, USPHS
DRH X-Ray Exposure Control Laboratory
Rockville, MD.

10/61-8/63

Responsible for x-ray film and film-screen speed determinations, and analysis of energy dependence. Advised director on film dosimetry and x-ray physics.

9/60-10/61

Research Assistant
Department of Radiology, School of Medicine
Emory University, Atlanta, Georgia

Evaluated scattered and primary x-rays interacting in phantoms, including applying techniques developed at the department to correct these spectra. Applied results to Master's Thesis.

PROFESSIONAL SOCIETIES, COMMITTEES

Professional Society Memberships

Health Physics Society & Baltimore-Washington Chapter
American Association of Physicists in Medicine (AAPM) & Mid-Atlantic Chapter
American College of Radiology
American Society of Therapeutic Radiologists and
International Society for Magnetic Resonance in Medicine (ISMRM)
USPHS Commissioned Officers Association and DC Chapter

Committee Memberships

American National Standards Institute, CDRH Representative to Subcommittee IT2-31,
Sensitometry of X-Ray Films, 1975 to present
AAPM Diagnostic X-Ray (DXR) Imaging Committee, Member
AAPM DXR Task Group #4, Rewrite of NCRP #49, Member
AAPM Nuclear Magnetic Resonance (NMR) Committee, CDRH Liaison
AAPM NMR Task Group #3, MR Safety, Regulation, and Site Planning Committee, Chairman
AAPM NMR Task #6, NMR Systems Specs and Acceptance Testing Protocols, Member
IEC 62B WG21, MR safety standard development for IEC promulgation, US Member
IEC 62C WG1, Radiation therapy standards development IEC promulgation, US Member
IEC 62B US TAG WG3, Technical expert for IEC diagnostic device standards development, CDRH
Liaison Member
SMR Safety Committee, CDRH Liaison

Society Activities

Secretary, Montgomery, AL Commissioned Officers Association Chapter, 1968-1970
CoChair, Local Arrangements Committee, AAPM Annual Meeting, 1993
President Elect, Mid-Atlantic Chapter, AAPM, 1995
President, Mid-Atlantic Chapter, AAPM, 1996
CoChair, Local Arrangements Committee, 1997 AAPM Summer School CoChair

HONORS

PHS Commendation Medal, June 30, 1989
PHS Unit Commendation Awards in 1981 and 1984
PHS Commissioned Officer's Award, 1979 and 1989
FDA "On the Spot Award", February, 1995
FDA Special Recognition Award for "Sustained Excellent Performance in the Regulation of
Radiation Therapy Devices, September 27, 1995

CERTIFICATION

American Board of Health Physics, Health Physics Society, 1972. Recertified, 1981, 1985,
1989, 1993.

PUBLICATIONS

1. R. E. Shuping, Analysis of the Quality and Quantity of X-Radiation Scattered in Phantom Material, MS Thesis, Emory University, Atlanta, GA (1961).
2. H. L. Kelley, R. E. Shuping, R. H. Schneider, and A. A. Moghissi, "Automatic Sample Changer for Solid State Alpha Spectroscopy", Nuclear Instrumentation and Methods 70, 119-120 (1969).
3. R. E. Shuping, C. R. Philips, and A. A. Moghissi, "Low Level Counting of Environmental Krypton-85 by Liquid Scintillation", Analytical Chemistry 41, 2082-2083 (1969).
4. R. E. Shuping, C. R. Philips, and A. A. Moghissi, "Krypton-85 Levels in the Environment Determined from Dated Krypton Gas Samples", Radiological Health Data and Reports 11, 671-672 (1970).
5. D. W. Peak, D. L. Conover, W. A. Herman, and R. E. Shuping, Measurement of Power Density from Marine Radar, DHEW publication (FDA) 76-8004 (1975).
6. R. E. Shuping and P. F. Judy, "Energy Absorbed in Calcium Tungstate X-ray Screens", Medical Physics 4, 239-243 (1976).
7. T. R. Fewell and R. E. Shuping, "Photon Energy Distribution of Some Typical Diagnostic X-Ray Beams", Medical Physics 4, 187-197 (1977).
8. T. R. Fewell and R. E. Shuping, "A Comparison of Mammographic X-Ray Spectra", Radiology 128, 211-216 (1978).
9. R. E. Shuping, A Model of the Radiographic Process, D.Sc. Dissertation, (November 1978), Harvard University School of Public Health, Boston, MA.
10. R. E. Shuping and P. F. Judy, "Resolution and Contrast Reduction", Medical Physics 5, 491-496 (1978).
11. T. R. Fewell and R. E. Shuping, A Handbook of Mammographic X-Ray Spectra, DHEW publication (FDA) 79-8071 (1979).
12. R. E. Shuping, T. R. Fewell, R. A. Phillips, R. R. Gross, and C. K. Showalter, "Dose Reduction Potential of Carbon-Fiber Material in Diagnostic Radiology", in Application of Optical Instrumentation in Medicine VIII, Vol. 233, Society of Photographic Scientists and Engineers, P.O. Box 10, Bellingham, WA 98225 (1980).
13. R. E. Shuping, Use of Photographic Film to Estimate Exposure Near the Three Mile Island Nuclear Power Station, DHHS Publication (FDA) 81-8142 (February 1981).
14. T. R. Fewell and R. E. Shuping, Handbook of Computed Tomography X-Ray Spectra, DHHS publication (FDA) 81-8162 (April 1981).
15. R. E. Shuping, "Use of Photographic Film to Estimate Exposure Near TMI", Health Physics 41, 195-199 (1981).

PRESENTATIONS

1. R. E. Shuping and T. R. Fewell, "Computed Tomography X-Ray Spectra", Works in Progress Session - Physics/Transmission and Emission Tomography, RSNA, Chicago, IL, 1978.
2. R. E. Shuping, T. R. Fewell, R. A. Phillips, R. R. Gross, and C. K. Showalter, "Dose Reduction Potential of Carbon Fiber Composite Material", Works in Progress Session - Physics/Diagnostic Radiology, RSNA, Atlanta, GA, 1979.
3. R. E. Shuping, "An Independent Estimation of Exposure Near the Three Mile Island Nuclear Power Station Using Photographic Film", Health Physics Society Annual Meeting, Seattle, WA, 1980.
4. Presentation on FDA Regulation of Therapy Software, AAPM Annual Meeting, 1992
5. Presentation on FDA Regulation of Brachytherapy Devices/Software, AAPM Summer School on Brachytherapy Physics, 1994
6. Presentation on FDA Dosimetry Requirements for Radiation for Restenosis, Emory University, Symposium on Radiation for Restenosis, 1996



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 18

Nucletron Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133

CORRECTED COPY

In accordance with letter dated July 19, 1996, Radioactive Material License Number MD-27-035-01 is amended as follows:

Licensee's name is changed from: Nucletron-Oldelft Corporation
to: Nucletron Corporation

Change will be effective September 1, 1996.

Condition 11B to read:

11B. Radioactive material shall be used by A. Ten Brinke, Michael Cierniak, A. Casey Valentine, C. Mellink, Chuck Jones, Hal Archibald, Brent Loudy, Chris Scott, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Mark Irvin, Charles Hicks, G. Kagan Ertugrul, E.J. Kromhout van der Meer M. Slot, Jason Shirdon or Ovila J. Dionne, Jr.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date August 8, 1996

Roland A. Fletcher

RADIOLOGICAL HEALTH PROGRAM MANAGER II

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DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01	Amendment No. 17
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Nucletron-Oldelft Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133

In accordance with letter dated June 20, 1996, Radioactive Material License Number MD-27-035-01 is amended as follows:

Condition 11B to read:

11B. Radioactive material shall be used by:

Hal Archibald
*A. Ten Brinke
Michael Cierniak
James Cowan
Ovila J. Dionne, Jr.
G. Kagan Ertugrul
C. Mellink

David Glessner
Charles Hicks
Mark Irvin
Chuck Jones
Perry Koonce
Brent Loudy
C. Mellink

Chris Scott
Jason Shirdon
E.J. Kromhout van der Meer M. Slot
Chuck Tow
A. Casey Valentine
Ben Vaughn
Lawerence Vincent

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date July 8, 1996

RADIOLOGICAL HEALTH PROGRAM MANAGER II

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DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 16

Nucletron-Oldelft Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133

In accordance with letter dated June 3, 1996, Radioactive Material License Number MD-27-035-01 is amended as follows:

Condition 11 to read:

- 11A. The radiation protection program shall be under the supervision of Ovila J. Dionne Jr.
- 11B. Radioactive material shall be used by A. Ten Brinke, C. Mellink, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Mark Irvin, Charles Hicks, G. Kagan Etugrul, E.J. Kromhout van der Meer M. Slot, Jason Shirdon or Ovila J. Dionne, Jr.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date June 4, 1996

RADIOLOGICAL HEALTH PROGRAM MANAGER II

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MDER-L1 (supp) (11/90)





DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 15

Nucletron-Oldelft Corporation
7080 Columbia Gateway Drive
Columbia, Maryland 21046-2133

In accordance with letter dated March 29, 1996, Radioactive Material License Number MD-27-035-01 is amended as follows:

Condition 14 to add letter dated March 29, 1996 outlining licensee's Corrective Action Plan and program changes.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date April 19, 1996

Robert H. Helges

RADIOLOGICAL HEALTH PROGRAM MANAGER II

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DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 13

Nucletron-Oldelft Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133

In accordance with letter dated November 2, 1995, Radioactive Material License Number MD-27-035-01 is amended as follows:

Condition 11B to read:

11B. Radioactive material shall be used by Stephen P. Teague, A. Ten Brinke, C. Mellink, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Mark Irvin, Charles Hicks, G. Kagan Ertugrul, E.J. Kromhout van der Meer M. Slot. and/or Jason Shirdon.

Condition 14 to add letter dated November 2, 1995 containing revised management structure.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date December 14, 1995

RADIOLOGICAL HEALTH PROGRAM MANAGER II

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DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01	Amendment No. 13
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Nucletron-Oldelft Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133

In accordance with letter dated January 17, 1995, Radioactive Material License Number MD-27-035-01 is amended as follows:

The licensee's name is changed from: Nucletron Corporation
to: Nucletron-Oldelft Corporation

Condition 11B, to read:

11B. Radioactive material shall be used by Stephen P. Teague, A. Ten Brinke, C. Mellink, John Harrison, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Mark Irvin, Charles Hicks, G. Kagan Ertugrul, E.J. Kromhout van der Meer and/or M. Slot.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date January 20, 1995

ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM

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DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 12

Nucletron Corporation
7080 Columbia Gateway Drive
Columbia, MD 21046-2133

In accordance with letter dated July 11, 1994, Radioactive Material License Number MD-27-035-01 is amended as follows:

Condition 11B, to read:

11B. Radioactive material shall be used by Stephen P. Teague, A. Ten Brinke, C. Mellink, John Harrison, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, John Conti, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Mark Irvin, Charles Hicks, G. Kagan Ertugrul, E.J. Kromhout van der Meer and/or M. Slot.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Date July 14, 1994

Roland H. Fletcher
ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM

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140



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 11

Electron Corp.
60 Red Branch Road
Baltimore, MD 21045

in accordance with letter dated February 10, 1994, Radioactive Material License Number
MD-27-035-01 is amended as follows:

Amendment 11B, to read:

- Radioactive material shall be used by Stephen P. Teague, A. Ten Brinke, C. Mellink, John Harrison, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, John Conti, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Mark Irvin and/or Charles Hicks.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

Robert H. Fletcher

ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM

Date February 16, 1994

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DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 4 of 1 pages

Supplementary Sheet

License No. MD-27-035-01	Amendment No. 10
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Ucletron Corporation
080 Columbia Gateway Drive
Columbia, MD 21046-2133

In accordance with letter dated April 15, 1993, Radioactive Material License Number MD-27-035-01 is amended as follows:

The licensee's address is changed from: 9160 Red Branch Road
Columbia, MD 21045
to: 7080 Columbia Gateway Drive
Columbia, MD 21046-2133

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

April 16, 1993

Robert H. Fletcher
ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 1 of 1 pages

Supplementary Sheet

License No. MD-27-035-01	Amendment No. 09
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Ucletron Corporation
160 Red Branch Road
Columbia, MD 21045

In accordance with letter dated April 1, 1993, Radioactive Material License Number MD-27-035-01 is amended as follows:

Condition 11B to read:

- B. Radioactive material shall be used by Stephen P. Teague, A. Miles Mount, L. Van Zwol, M. Cragg, A. Ten Brinke, C. Mellink, John Harrison, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, John Conti, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Bill Wimbish, T. Sackett, Mark Irvin and/or Charles Hicks.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

April 13, 1993

Roland H. Fletcher
ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 2 of 3 pages

Supplementary Sheet

License No. MD-27-035-01

Amendment No. 08

CONDITIONS

0. Radioactive material may be used only at temporary job sites of the licensee throughout Maryland. The licensee must notify the Radiological Health Program 30 days prior to vacating a permanent use address as is required by Section D.407 of COMAR 26.12.01.01.
- 1.A. The radiation protection program shall be under the supervision of Stephen P. Teague.
- B. Radioactive material shall be used by L. Van Zwol, M. Cragg, A. Ten Brinke, C. Mellink, A. Miles Mount, Stephen P. Teague, John Harrison, Terry Speck, Chuck Jones, Hal Archibald, Brent Loudy, Doug Cook, John Conti, Chris Scott, Joe Oliver, James Cowan, Perry Koonce, David Glessner, Lawrence Vincent, Chuck Tow, Bill Wimbish, T. Sackett and/or Mark Irvin.
- The licensee shall comply with provisions of Part D, "Standards for Protection Against Radiation", Part G, "Use of Sealed Radioactive Sources in the Healing Arts" and Part J, "Notices, Instructions and Reports to Workers; Inspections of the Maryland Regulations 26.12.01.01 "Regulations for Control of Ionizing Radiation".
- A. The licensee shall not make any false statement, representation, or certification in any application, record, report, plan, or other document regarding radiation levels, tests performed or radiation safety conditions or practices. Nor shall the licensee falsify, tamper with, or render inaccurate any monitoring device or method.
- B. Violation of any term, condition, or regulation could subject the licensee to administrative or civil penalty or criminal prosecution, as specified in Title 8, Radiation of the Article Environment of the Annotated Code of Maryland.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM



DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

Page 3 of 3 pages

Supplementary Sheet

License No. MD-27-035-01	Amendment No. 08
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CONDITIONS CONT'D

- i. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material authorized by this license in accordance with statements representations, and procedures contained in application dated October 27, 1992, including "Radiation Safety and Science Handling Procedures Manual", and letter dated January 12, 1993. COMAR 26.12.01.01 "Regulations for Control of Ionizing Radiation" shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

February 9, 1993

Robert H. Fletcher
ADMINISTRATOR, RADIOLOGICAL HEALTH PROGRAM

/s/ alj

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LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

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: PROGRAM CODE: 03225
: STATUS CODE: 0
: FEE CATEGORY: 3N
: EXP. DATE: 20030331
: FEE COMMENTS:
: DECOM FIN ASSUR REQD: N

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A. REGION

APPLICANT/LICENSEE: NUCLETRON CORPORATION
RECEIVED DATE: 970121
DOCKET NO: 3032842
CONTROL NO.: 124124
LICENSE NO.: 19-28772-01
ACTION TYPE: AMENDMENT

AMOUNT: \$ 590.00
CHECK NO.: 015197

SIGNED M. A. Perkins
DATE 1/21/97

1. FEE CATEGORY AND AMOUNT: 32

AMENDMENT _____
RENEWAL _____
LICENSE _____

3. OTHER

SIGNED
DATE

Log Jan 13
Remitter
Check No. 15182
Amount \$590
Fee Category 3W
Type of Fee Am^o
Date Check Rec'd 1/31/97
Date Completed 68
By: