

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

OFFICIAL RECORD COPY

License Number

20-17020-05

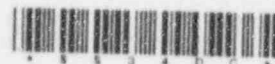
Docket or Reference Number

030-34407

Amendment No. 01

Camp Dresser & McKee, Inc.
Laboratory Services Division
Riverside Technology Center
840 Memorial Drive
Cambridge, Massachusetts 02139

In accordance with the letter dated April 2, 1997, License Number 20-17020-05 is hereby terminated.



For the U.S. Nuclear Regulatory Commission

ORIGINAL SIGNED BY:

JAMES M. BONDICK

By

Nuclear Materials Safety Branch
Region I

King of Prussia, Pennsylvania 19406

ML 10

9/1

Date MAY 28 1997

130040

9706130143 970528
PDR ADOCK 03034407
C PDR

MAY 28 1997

Susan D. Ettinger
Laboratory Services
Camp Dresser & McKee, Inc.
Riverside Technology Center
840 Memorial Drive
Cambridge, MA 02139

Dear Ms. Ettinger:

Please find enclosed Amendment No. 01 terminating License No. 20-17020-05 as requested by your letter dated April 2, 1997.

Your cooperation with us is appreciated.

Sincerely,

**ORIGINAL SIGNED BY:
JAMES M. BONDICK**

James M. Bondick
Health Physicist
Division of Nuclear Materials Safety

License No. 20-17020-05
Docket No. 030-34407
Control No. 124455

Enclosure:
Amendment No. 01

DOCUMENT NAME: R:\WPS\MLTR\L2017020.05

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	JBondick/jmb <i>JB</i>		JKinneman				
DATE	05/28/97		05/ /97		05/ /97		05/ /97

OFFICIAL RECORD COPY ML 10

CDMconsulting
engineering
construction
operations

Camp Dresser & McKee Inc.

Riverside Technology Center
840 Memorial Drive
Cambridge, Massachusetts 02139
Tel: 617 354-4448 Fax: 617 354-076450th
1947-1997
AnniversaryMS6
Q-6

Mail Control No. 124455

May 13, 1997

James M. Bondick
Division of Nuclear Materials Safety
Nuclear Regulatory Commission
Region 1
475 Allendale Road
King Of Prussia, Pennsylvania 19406-1415

Dear Mr. Bondick:

This is in reference to your letter dated on April 29, 1997 requesting additional information regarding termination of NRC License No. 20-17020-05.

The Certificate Of Disposition Of Materials Form, NRC Form 314, has been completed and enclosed with this letter. Included is the letter from the manufacturer confirming the source disposal.

The dates and results of the leak tests performed on the nickel-63 sources (NRC License No. 20-17020-02) are as follows:

Serial # L1928: Tests on Dec 20, 1993 and Jun 20, 1994 with results each time of removable contamination was Less Than 1×10^{-04} uCi. This source was returned for exchange to the manufacturer on Nov 7, 1994.

Serial # L3464: This source was returned for exchange to the manufacturer on Dec 16, 1993.

Serial # L7745: Tests on Dec 20, 1993; Jun 20, 1994; Dec 19, 1994; Jun 12, 1995, Dec 8, 1995, Jun 7, 1996 and Dec 16, 1996 with results each time of removable contamination was Less Than 1×10^{-04} uCi. This source was returned for exchange to the manufacturer on April 16, 1997.

124455

OFFICIAL RECORD COPY

ML 10

MAY 19 1997

J. Bondick
Nuclear Regulatory Commission

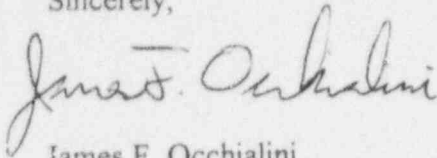
-2-

Serial # M1425: Tests on Dec 20, 1993; Jun 20, 1994; Dec 19, 1994; Jun 12, 1995; Dec 8, 1995 and Jun 7, 1996 with results each time of removable contamination was Less Than 1×10^{-04} uCi. This source was returned for exchange to the manufacturer on July 30, 1996.

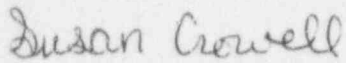
Please note that the NRC License No. 20-17020-02 which contains the nickel-63 sources has had transferred of regulatory authority to the Commonwealth of Massachusetts effective March 21, 1997.

Thank you for your attention to this matter.

Sincerely,



James F. Occhialini
Laboratory Manager


Susan (Ettinger) Crowell
Radiation Safety Officer

Laboratory Services
Camp Dresser & McKee, Inc.
840 Memorial Drive
Cambridge, MA 02139

License No. 20-17020-05
Control No. 124455

Enclosure:
NRC Form 314
Sentex Systems Inc. Confirmation Letter

(6-95)
10 CFR 30.36(c)(3)(iv)
10 CFR 40.42(c)(1)(iv)
10 CFR 70.38(c)(1)(iv)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 30 MINUTES. THIS SUBMITTAL IS USED BY NRC AS PART OF THE BASIS FOR ITS DETERMINATION THAT THE FACILITY HAS BEEN CLEARED OF RADIOACTIVE MATERIAL BEFORE THE FACILITY IS RELEASED FOR UNRESTRICTED USE. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (7-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0028), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503. AN AGENCY MAY NOT CONDUCT OR SPONSOR, AND A PERSON IS NOT REQUIRED TO RESPOND TO, A COLLECTION OF INFORMATION UNLESS IT DISPLAYS A CURRENTLY VALID OMB CONTROL NUMBER.

CERTIFICATE OF DISPOSITION OF MATERIALS

INSTRUCTIONS: ALL ITEMS MUST BE COMPLETED - PRINT OR TYPE
SEND THE COMPLETED CERTIFICATE TO THE NRC OFFICE SPECIFIED ON THE REVERSE

LICENSEE NAME AND ADDRESS

Camp Dresser & McKee, Inc.
Laboratory Services
Riverside Technology Center
840 Memorial Drive
Cambridge, Massachusetts 02139

LICENSE NUMBER

20-17020-05

LICENSE EXPIRATION DATE

January 31, 2002

A. MATERIALS DATA (Check one and complete as necessary)

THE LICENSEE OR ANY INDIVIDUAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE LICENSEE CERTIFIES THAT:
(Check and/or complete the appropriate item(s) below.)

- ☐ 1. NO MATERIALS HAVE EVER BEEN PROCURED OR POSSESSED BY THE LICENSEE UNDER THIS LICENSE.
- OR
- ☒ 2. ALL ACTIVITIES AUTHORIZED BY THE LICENSE HAVE CEASED AND ALL MATERIALS PROCURED AND/OR POSSESSED BY THE LICENSE NUMBER CITED ABOVE HAVE BEEN DISPOSED OF IN THE FOLLOWING MANNER. (If additional space is needed, use the reverse side or provide attachments.) The Hydrogen 3 source was returned to the manufacturer, Sentex System Inc., for disposal.
- Describe specific material transfer actions and, if there were radioactive wastes generated in terminating this license, the disposal actions including the disposition of low-level radioactive waste, mixed waste, Greater-than-Class-C waste, and sealed sources, if applicable. No waste was generated by Camp Dresser & McKee, Inc. in the transfer to the manufacturer for disposal. The source was returned to the manufacturer sealed in the instrument chassis. Included is the letter from reverse
- For transfers, specify the date of the transfer, the name of the license recipient, and the recipient's NRC license number or Agreement State name and license number.

If materials were disposed of directly by the licensee rather than transferred to another licensee, licensed disposal site or waste contractor, describe the specific disposal procedures (e.g., decay in storage)

B. OTHER DATA

- ☒ 1. OUR LICENSE HAS NOT YET EXPIRED; PLEASE TERMINATE IT.
2. A RADIATION SURVEY WAS CONDUCTED BY THE LICENSEE TO CONFIRM THE ABSENCE OF LICENSED RADIOACTIVE MATERIALS AND TO DETERMINE WHETHER ANY CONTAMINATION REMAINS ON THE PREMISES COVERED BY THE LICENSE. (Check one)
- ☒ NO (Attach explanation) The Hydrogen-3 source was returned to the manufacturer, sealed in the instrument chassis.
- ☐ YES, THE RESULTS (Check one)
- ☐ ARE ATTACHED, or
- ☐ WERE FORWARDED TO NRC ON (Date)

3. THE PERSON TO BE CONTACTED REGARDING THE INFORMATION PROVIDED ON THIS FORM

NAME James Occhialini
Laboratory Manager

TELEPHONE NUMBER
(Include Area Code)

(617) 354-4448

4. MAIL ALL FUTURE CORRESPONDENCE REGARDING THIS LICENSE TO

Camp Dresser & McKee, Inc.
840 Memorial Drive
Cambridge, Massachusetts 02139

CERTIFYING OFFICIAL

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT

PRINTED NAME AND TITLE

James Occhialini
Laboratory Manager

SIGNATURE

James F. Occhialini

DATE

5/15/97

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECTS. 18 U.S.C. SECTION 1001 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 JURISDICTIONS.

FILE CERTIFICATES AS FOLLOWS:

IF YOU ARE A DISTRIBUTOR OF EXEMPT PRODUCTS, SEND TO:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHERS, IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE,
MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW
JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR
VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANCE SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI,
NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA,
TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,
SEND APPLICATIONS TO:

NUCLEAR MATERIALS SAFETY SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
101 MARIETTA STREET NW, SUITE 2900
ATLANTA, GA 30323-0199

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI,
OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE ROAD
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO,
HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA,
NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA,
OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA,
TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND
APPLICATIONS TO:

MATERIAL RADIATION PROTECTION SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

2. continued - the manufacturer confirming the source disposal.

Sentex Systems Inc.

March 20, 1997

Mr. Scott Kirchner
CDM FEDERAL PROGRAMS CORP.
107-F Corporate Blvd.
South Plainfield, NJ 07080

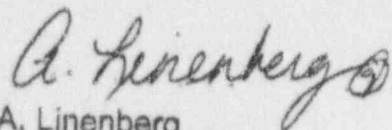
Dear Mr. Kirchner:

This letter shall confirm that we have received two Scentor Portable Gas Chromatographs - S/N: 40K-109 and S/N: 40K-110, from CDM Federal Programs Corp. in South Plainfield, NJ. As manufacturer of these instruments, we have removed the radioactive foils contained therein, and have disposed of them by sending them back to their manufacturer, Safety Light Corp. in Bloomsburg, PA. Both instrument chassis were returned to the customer after source removal/disposal.

If further information is required, please contact me directly.

Yours truly,

SENTEX SENSING TECHNOLOGY, INC.
d/b/a SENTEX SYSTEMS, INC.



A. Linenberg
Radiation Safety Officer

AL/cj

*Hydrogen 3
Source*

APR 29 1997

License No. 20-17020-05
Docket No. 030-34407
Control No. 124455

Susan D. Ettinger
Radiation Safety Officer
Laboratory Services
Camp Dresser & McKee
840 Memorial Drive
Cambridge, MA 02139

Dear Ms. Ettinger:

This is in reference to your letter dated April 2, 1997 requesting an amendment to Nuclear Regulatory Commission License No. 20-17020-05. In order to continue our review, we need the following additional information:

1. Your application should have been signed by a management representative rather than the Radiation Safety Officer. Note also that a management representative should sign all future correspondence that requests a change in your license.
2. License No. 20-17020-05 was issued on March 21, 1997 for the possession and use of ECD's containing hydrogen-3 as foils or plated sources in detector cell not to exceed 200 millicuries per source and a maximum possession limit of 1 curie total. A review of the license file indicates that as of April 14, 1993, you were in possession of four Hewlett Packard ECD's (with source serial numbers L1928, L3464, L7745, and M1425) that contain nickel-63. The source with serial number L1928 was last leak tested on April 27, 1993. The sources with serial numbers L3464, L7745, and M1425 were last leak tested on May 1, 1993. In order to terminate License No. 20-17020-05, provide the following information: 1) specify the disposition of all sources of byproduct material in your possession on NRC Form 314, and 2) provide the dates and results of leak tests performed on the nickel-63 sources with serial numbers L1928, L3464, L7745, and M1425 since 1993.

We will continue our review upon receipt of this information. Please reply in duplicate to my attention at the Region I Office and refer to Mail Control No. 124455. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-6951.

OFFICIAL RECORD COPY **ML 10**

S. Ettinger
Camp Dresser & McKee

-2-

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.

Sincerely,

Original Signed By:

James M. Bondick
Health Physicist
Division of Nuclear Materials Safety

License No. 20-17020-05
Docket No. 030-34407
Control No. 124455

Enclosures:

1. 10 CFR Part 30
2. NRC Form 314

DOCUMENT NAME: R:\WPS\DLTR\L2017020.05

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	JBondick/jmb <i>JB</i>						
DATE	04/11/97	04/ /97	04/ /97	04/ /97	04/ /97		

OFFICIAL RECORD COPY

U.S. Nuclear Regulatory Commission
Region I Office
Licensing Assistance Team
475 Allendale Road
King Of Prussia, Pennsylvania 19406-1415

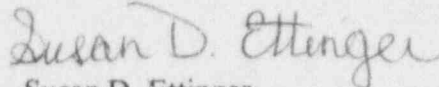
April 2, 1997

Dear Licensing Assistance Team:

My company, Camp Dresser & McKee, Inc., Laboratory Services, resides in the Commonwealth of Massachusetts. As of March 21, 1997 the Laboratory's NRC license has been transferred to the Commonwealth. Since our NRC license also authorized activities at temporary job sites where NRC has jurisdiction, I had indicated to your Commission to retain a NRC license for temporary job sites. I was just notified by my management not to retain a NRC license for temporary job sites. Please make the appropriate corrections to my request for termination of the Laboratory's NRC license.

Sorry for the inconvenience on this correction.

Sincerely,



Susan D. Ettinger
Radiation Safety Officer
Laboratory Services
Camp Dresser & McKee, Inc.
840 Memorial Drive
Cambridge, MA 02139

License No: 20-17020-05
Docket No: 030-34407

Enclosure: License No: 20-17020-05

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, 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.

Licensee		3. License Number
1. Camp Dresser & McKee, Inc. Laboratory Services		20-17020-05
2. Riverside Technology Center 840 Memorial Drive Cambridge, Massachusetts 02139		4. Expiration Date January 31, 2002
		5. Docket or Reference No. 030-34407/20-17020-02
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. Hydrogen 3	A. Foils or plated sources in detector cells	A. Not to exceed 200 millicuries per source and 1 curie total

9. Authorized use

A. For use in electron capture detectors in gas chromatographs which are distributed under a license issued by the Nuclear Regulatory Commission or an Agreement State.

CONDITIONS

10. Licensed material may be used only at temporary job sites anywhere in the United States where the 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, Daniel P. Roberge, Peter Maynard and Li Li.
B. The Radiation Safety Officer for this license is Susan D. Ettinger.
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.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

20-17020-05

Docket or Reference Number

030-34407/20-17020-02

13. 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.
- 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.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

20-17020-05

Docket or Reference Number

030-34407/20-17020-02

1. The licensee is authorized to collect leak test samples for analysis by Nuclear Radiation Developments, 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. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
15. Detector cells containing a titanium tritide foil or a scandium tritide 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.
16. 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.
17. 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.
18. 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 26, 1991
B. Letter dated January 6, 1992

For the U.S. Nuclear Regulatory Commission

Date MAR 21 1997

By

John R. McQuinn
Nuclear Materials Safety Branch
Region I
King of Prussia, Pennsylvania 19406

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

Program Code: 03123
Status Code: 0
Fee Category: _____
Exp. Date: 20020131
Fee Comments: _____
Decom Fin Assur Req'd: _____

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: CAMP DRESSER & MCKEE, INC.
Received Date: 970407
Docket No: 3034407
Control No.: 124455
License No.: 20-17020-05
Action Type: Termination

2. FEE ATTACHED

Amount: _____
Check No.: _____

3. COMMENTS

Signed Brown, R. J.
Date 4/6/97

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered ☒)

FEE EXEMPT

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:

Amendment _____
Renewal _____
License _____

3. OTHER _____

Signed _____
Date _____

RECEIVED BY LFDGB	
Date	<u>4/11/97</u>
Log	<u>APR 12</u>
By	<u>RB</u>
Date Cancelled	<u>4/12/97</u>

1997 APR 16 AM 7:24