MATERIALS LICENSE

Amendment No. 02

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.

3082027

Licensee	
1. EMCON	In accordance with letters dated November 6, 1996 and November 26, 1996
2. 603 East Diehl Road, Suite 123 Naperville, IL 60532-1477	3. License Number 12-26601-01 is amended in its entirety as follows:
	4. Expiration Date October 31, 2004
	5. Docket or Reference No. 030-33641

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. Cesium-137	A. Sealed Source (Troxler Dwg. No. A-102112)	A. Ten sources not to exceed 10 millicuries each
B. Americium-241	B. Sealed Source (Troxler Dwg. No. A-102451)	B. Ten sources not to exceed 50 millicuries each

9. Authorized Use:

A. and B. To be used in Troxler Model 3400 Series moisture/density gauges.

CONDITIONS

10. Licensed material shall 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. The Radiation Safety Officer for this license is Christopher S. Mang.

12. Licensed material shall only be used by, or under the supervision and in the physical presence of, James B. Camasto or individuals who have successfully completed the manufacturer's training program for gauge users, have been instructed in the licensee's routine and emergency operating procedures and who have been designated by the Radiation Safety Officer.

190045

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number 12-26601-01

Docket or Reference Number 030-33641

Amendment No. 02

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

B. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months prior to the transfer, a sealed source received from another person shall not be put into use until tested.

C. Sealed sources need not be leak tested if 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 transferred 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.

D. The leak 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 in accordance with 10 CFR 30.50(b)(2), and the source shall be removed immediately 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 III, ATTN: Chief, Nuclear Materials Safety Branch, 801 Warrenville Road, Lisle, Illinois 60532-4351. The report shall specify the source involved, the test results, and corrective action taken.

E. The licensee is authorized to collect leak test samples for analysis by Troxler Electronic Labs, 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. Sealed sources containing licensed material shall not be opened or sources removed from source holders by the licensee.

15. When performing tests at temporary job sites, the authorized user shall not leave the moisture/density gauge unattended. Upon completion of tests the device shall be locked in the licensee's vehicle or a secure building to prevent unauthorized use, loss, or theft.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number 12-26601-01

Docket or Reference Number 030-33641

Amendment No. 02

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.

17. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

18. Any cleaning, maintenance, or repair of the gauge(s) that requires removal of the source rod shall be performed only by the manufacturer or by other persons specifically licensed by the Commission or an Agreement State to perform such services.

19. 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 U.S. 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, 1994; and

    B. Letters dated August 23, 1996 (with attachments), and November 6, 1996.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date 12/9/96

By James Mullauer
Nuclear Materials Licensing Branch, Region III

COPY

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03121
Status Code: 0
Fee Category: 3P
Exp. Date: 20041031
Fee Comments:
Decom Fin Assur Reqd: N

R4

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
   Applicant/Licensee: EMCON
   Received Date: 961107
   Docket No: 3033641
   Control No.: 302027
   License No.: 12-26601-01
   Action Type: Amendment

2. FEE ATTACHED
   Amount: 8
   Check No.: 9

3. COMMENTS

Signed D. Hensey
Date 11-8-96

1996 NOV 12 PM 2:17

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

1. Fee Category and Amount: 3P $300

2. Correct Fee Paid. Application may be processed for:
   Amendment ✓
   Renewal
   License

3. OTHER

Signed SC
Date 12/5/96

DEC 09 1996

Log NOV 7 III
Remitter
Check No. 6665
Amount $300
Fee Category 3P
Type of Fee AMD
Date Check Rec'd 12/5/96
Date Completed
By: SC

NRC FORM 577
(1-95)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSE FEE REQUIREMENTS

LICENSE FEE AND DEBT COLLECTION BRANCH
DIVISION OF ACCOUNTING AND FINANCE
OFFICE OF THE CONTROLLER
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

EMCON
ATTN: JAMES B. CAMASTO
PROJECT MANAGER
603 EAST DIEHL ROAD
SUITE 123
NAPERVILLE, ILLINOIS 60563-1477

TYPE OF ACTION

- ☐ NEW LICENSE
- ☐ RENEWAL OF LICENSE
- ☒ AMENDMENT TO LICENSE

REQUESTED DATE: 11-6-96

LICENSE NUMBER: 12-26601-01

CONTROL NUMBER: 302027

I. APPLICATION FEE DUE

Your request for a licensing action is subject to the fee(s) in the category(ies) noted below in accordance with Section 170.31 of the enclosed Federal Register notice. Payment of the fee is required prior to the issuance of the license, renewal, or amendment.

FEE CATEGORY	APPLICATION	RENEWAL	AMENDMENT
3P	$	$	$ 300.00
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$

FEE(s) DUE	$ 300.00
PAYMENT RECEIVED	$ 0.00
AMOUNT DUE	$ 300.00

☒ Your request was received without the prescribed application fee.

☐ We received your Check No. _____ in the amount of $ _____. Payment of the additional fee noted above is required.

☐ Your request will increase the scope of your license program. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(d)(2).

☐ Your license expired prior to the receipt of your application for renewal. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(a).

MAKE PAYMENT OF THE FEE(S) TO THE U.S. NUCLEAR REGULATORY COMMISSION AND MAIL THE PAYMENT TO THE ADDRESS LISTED AT THE TOP OF THIS FORM. IF WE DO NOT RECEIVE A REPLY FROM YOU WITHIN 30 CALENDAR DAYS FROM THE DATE LISTED BELOW, WE SHALL ASSUME THAT YOU DO NOT WISH TO PURSUE YOUR APPLICATION AND WILL VOID THIS ACTION.

II. FEE NOT REQUIRED

☐ Enclosed is Check No. _____ which accompanied your request. The fee is not required because:

- ☐ We received your Check No. _____ in payment of the fee.
- ☐ The Licensing staff has informed us that your request is to be considered as a continuation of your request dated _____, Control No. _____.
- ☐ Your request was combined, prior to review, with your _____ request, Control No. _____.

III. CHECK RETURNED

☐ Enclosed is Check No. _____ which was returned to us by the bank for:

- ☐ INSUFFICIENT FUNDS
- ☐ ACCOUNT CLOSED
- ☐ OTHER

MAIL THE REPLACEMENT CHECK TO THE ADDRESS LISTED AT THE TOP OF THIS FORM AND REFERENCE THE ABOVE CONTROL NUMBER.

IV. LICENSE ISSUED WITHOUT THE REQUIRED FEE

☐ License No. _____, Amendment No. _____, issued on _____ was issued without the required fee being collected. The fee required is noted in Section I of this form.

☐ The scope of your licensed program was increased. Therefore, your request is subject to the application fee(s) noted in Section I of this form. Refer to Section 170.31 and Footnote 1(d)(2).

☐ Because of the urgency of your request, the license was issued without remittance of the prescribed fee noted in Section 1 of this form.

SIGNATURE -- LICENSE FEE ANALYST	LFDCB	LFDCB
Shirley Crutchfield	SC	
SHIRLEY CRUTCHFIELD	11/15/96	

Distribution: OC/DAF/RF
Pending Fee File OC/DAF/SF(LF-3.2.7)
LFARB R/F (2) Region 3

DATE: Nov. 15, 1996

EMCON
603 East Diehl Road • Suite 123 • Naperville, IL 60563-1477 • (708) 505-9450 • Fax (708) 505-9454

November 6, 1996

Ms. Patricia M. Vacherlon
Nuclear Materials Licensing Section
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532-4351

Re: NRC Material License No. 12-26601-01

Dear Ms. Vacherlon:

We respectfully request an amendment to our radioactive materials license reflecting a change of our Radiation Safety Officer (RSO). Christopher S. Mang will be replacing James B. Camasto, performing all duties of the RSO. Mr. Mang is routinely available at our facility on 603 E. Diehl Rd, Suite 123, Naperville, IL, where our Troxler Density Gauges are stored. There are no other changes effecting control over the radiation safety at our facility.

We have also provided the following information in support of this change:

- A copy of Mr. Mang's Troxler Radiation Safety Training Course Certificate
- A copy of the revised emergency call list posted in the gauge storage area, with Mr. Mang's telephone number

This information has also been forwarded to the Illinois Department of Nuclear Safety regarding our IIIlinois license. If you require any additional information, or have any questions with regard to this matter, please contact our office.

Sincerely,

EMCON

James B. Camasto

James B. Camasto
Project Manager

Attachment

RECEIVED
NOV 07 1996
REGION III

G:\NUKE_MTR\NRC\RSO_CHNG.DOC-96

Pm; 11-6-96

302027
NOV 07 1996

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

CHRISTOPHER S. MANG

of

ELDREDGE ENGINEERING ASSOCIATES

HAS SUCCESSFULLY COMPLETED THE TROXLER ELECTRONIC LABORATORIES, INC. TRAINING COURSE FOR THE USE OF NUCLEAR TESTING EQUIPMENT.

SUBJECTS INCLUDED IN THIS COURSE WERE AS FOLLOWS:

Radiological Safety

1. *Principles and practices of radiation protection.*
2. *Leak testing procedures.*
3. *Mathematics and calculations basic to the use and measurement of radioactivity.*
4. *Biological effects of radiation.*
5. *Radioactivity measurement standardization and monitoring techniques and instruments.*
6. *Accident and incident procedures.*
7. *Procedures for nuclear gauge storage and transportation.*
8. *General safety precautions.*

Gauge Operation

1. *Instrument theory*
2. *Operating procedures*
3. *Maintenance*
4. *Field application*
5. *Gauge calibration*

INSTRUCTOR

FEBRUARY 24, 1989
DATE

W.F. TROXLER
PRESIDENT

№ 25940

EMERGENCY CONTACT TELEPHONE NUMBERS

Radiation Safety Officer, Christopher Mang

Office, Direct: (630) 505-9670 ext. 113

Office, General: (630) 505-9451

Home: (630) 554-1687

Pager: (708) 324-5555

US Nuclear Regulatory Commission, Region III

(800) 522-3025

Illinois Department of Nuclear Safety

(217) 785-0600

US Department of Transportation

(800) 424-8802

Troxler Electronic Laboratories, Inc.

(919) 839-2676

DEC 1 0 1996

James B. Camasto
Office Director
603 East Diehl Road
Suite 123
Naperville, IL 60532-1477

Dear Mr. Camasto:

Enclosed is Amendment No. 02 to your NRC Material License No. 12-26601-01 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office at (630) 829-9887 so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Notify NRC, in writing, within 30 days:

   a. When the Radiation Safety Officer permanently discontinues performance of duties under the license or has a name change; or

   b. When the licensee's mailing address changes (no fee is required if the location of byproduct material remains the same).

3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license when you decide to terminate all activities involving materials authorized under the license.

4. Request and obtain a license amendment before you:

   a. Change Radiation Safety Officers;

302027

b. Order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;

c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or

d. Change ownership of your organization.

5. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or 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. Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Sincerely,
Original Signed By
James R. Mullauer, M.H.S.
Health Physicist
Nuclear Materials Licensing Branch

License No.: 12-26601-01
Docket No.: 030-33641

Enclosure: Amendment No. 02

DOCUMENT NAME: M:\03033641.CL6

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	DNMS/RIII									
NAME	JMULLAUER:jaw									
DATE	12/9/96									

OFFICIAL RECORD COPY

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

November 12, 1996

Christopher S. Mang
Radiation Safety Officer
Emcon
603 East Dielh Road, Suite 123
Naperville, IL 60563-1477

SUBJECT: ACKNOWLEDGEMENT OF CORRESPONDENCE
(Letter Dated 11/06/96)

Dear Licensee:

In response to your request, we have completed the initial processing, which is an administrative review of your application for a(n):

___ New License X Amendment ___ Renewal

Administrative deficiencies were identified during this initial review as outlined below. However, it should be noted that a technical review may identify additional omissions in the submitted information.

It appears that your request is routine (see 1-3 below as, applicable).

Incomplete information is as follows: The required fee is necessary for us to complete your amendment request. Please contact our License Fee & Debt Collection Branch, located in our headquarters office, as referenced below, to obtain the correct fee amount.

1. New and amendment actions are normally processed within 90 days, unless we find major deficiencies, or policy issues requiring central program office assistance.

2. Renewal actions are normally processed within 180 days, however under timely filing (before expiration) you may continue to operate under your existing license.

3. Termination actions are normally processed within 90 days, unless confirmatory surveys following decontamination/decommissioning activities are involved.

A copy of your correspondence has been forwarded to our Licensing Fee and Debt Collection Branch (301/415-6097) for approval of the fee category and amount, if required.

If you have a compelling safety or business-related reason for requesting expedited review, please contact the Materials Licensing Branch at (630) 829-9887. We will try to complete your request as soon as practicable. Any correspondence about this request should reference the control number.

Nuclear Materials Support Branch

Mail Control No. 302027
License No. 12-26601-01

EMCON
603 East Diehl Road • Suite 123 • Naperville, IL 60563-1477 • (708) 505-9450 • Fax (708) 505-9454

November 26, 1996

Ms. Patricia M. Vacherlon
Nuclear Materials Licensing Section
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532-4351

Re: NRC Material License No. 12-26601-01

Dear Ms. Vacherlon:

We respectfully request an amendment to our radioactive materials license reflecting a change of our Radiation Safety Officer (RSO). Christopher S. Mang will be replacing James B. Camasto, performing all duties of the RSO. Mr. Mang is routinely available at our facility on 603 E. Diehl Rd, Suite 123, Naperville, IL, where our Troxler Density Gauges are stored. There are no other changes effecting control over the radiation safety at our facility.

We have also provided the following information in support of this change:

- A copy of Mr. Mang's Troxler Radiation Safety Training Course Certificate
- A brief resume describing Mr. Mang's experience and qualifications for this position
- A copy of the revised emergency call list posted in the gauge storage area, with Mr. Mang's telephone number

This information has also been forwarded to the Illinois Department of Nuclear Safety regarding our Illlinois license. If you require any additional information, or have any questions with regard to this matter, please contact our office.

Sincerely,

EMCON

James J. McGuigan
Office Director

Attachment

RECEIVED
DEC 0 4 1996
REGION III

G:\NUKE_MTR\NRC\RSO_CHNG.DOC-96

Pm: 12-3-96

302027
DEC 0 4 1996

CHRISTOPHER S. MANG
Network Administrator

EDUCATION/CREDENTIALS

Attended classes in Hazardous Materials Program at Waubonsee Community College, Sugar Grove, Illinois

CERTIFICATIONS

National Institute of Certified Engineering Technicians (Associate Engineering Technician)
Illinois Environmental Protection Agency Industrial Wastewater Operator (class K)
OSHA Health and Safety Training (40-Hour)
Nuclear Density Testing

EXPERIENCE SUMMARY

Since 1988, Mr. Mang has been responsible for providing technical support in the areas of liner construction certification and field surveying. He has performed soil density testing on landfill liners and final caps, as well as liner and cap grade control. Mr. Mang also has assisted in the sampling of wastewater, groundwater, surface water, leachate, and soils, and has participated in gas migration studies on various sites. He has performed inspections of various industrial sites to determine waste and stormwater flows.

Mr. Mang currently is responsible for the adminstration of the local area networks for several EMCON offices (Naperville, Northville, Cleveland). Mr. Mang provides technical support and troubleshooting expertise to the computer users in these offices, and he performs period maintenance on the software and hardware on those networks. Mr. mang also provides support for several "remote" users who, while not directly connected to the network, require assitance from time to time to resolve computer related problems.

KEY PROJECTS

Currently overseeing standardization of AutoCAD configuration across EMCON.

Currently supervising industrial wastewater pretreatment plant monitoring at American National Can, Chicago, Illinois. Responsibilities include directing staff in weekly plant audits and periodic sampling that confirm continued compliance with MWRDGC regulations.

Performed flexible membrane liner construction certification at Earthmovers Landfill, Elkhart, IN; McBeth Road Landfill, Fort Wayne, IN; Yaw Hill Landfill, Terre Haute, IN; and Sandpoint Landfill, Carlsbad, NM.

Conducted sewer flow tracing and investigation at: Eaglebrook Plastics, Chicago, IL; Alden & Ott Inks, Arlington Heights, IL,; American National Can, Chicago, IL; American National Can Graphic Arts Center, Bellwood, IL.

Responsible for liner certification, soil density testing, survey control, and periodic surface water sampling at Congress Development Company Landfill. Duties included liner thickness control, final grade control, monthly refuse volume confirmation surveying, and was available on an as-needed basis for other site work.

Assisted in liner certification, soil density testing, and survey control at Beecher Development Company. Final cover certification, landfill liner certification, and surveying for the determination of monthly refuse volume were among his responsibilities.

Provided survey control for Lapeer County Landfill, Lapeer, MI and Miller Road Landfill, Saginaw, MI. He also provides survey control for Smiths Creek Landfill, St. Clair County, MI.

Provided project management assistance in the landfill permit application for the Sand Point Landfill, Carlsbad, NM. He helped compile reports from several different sources into the final ument. He then assited in

Furnished survey control and was responsible for liner certification at Yaw Hill & Coal Bluff Landfills, Terre Haute, IN, and McBeth Road Landfill, Fort Wayne, IN.

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

CHRISTOPHER S. MANG

of

ELDREDGE ENGINEERING ASSOCIATES

HAS SUCCESSFULLY COMPLETED THE TROXLER ELECTRONIC LABORATORIES, INC. TRAINING COURSE FOR THE USE OF NUCLEAR TESTING EQUIPMENT.

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4. *Biological effects of radiation.*
5. *Radioactivity measurement standardization and monitoring techniques and instruments.*
6. *Accident and incident procedures.*
7. *Procedures for nuclear gauge storage and transportation.*
8. *General safety precautions.*

Gauge Operation

1. *Instrument theory*
2. *Operating procedures*
3. *Maintenance*
4. *Field application*
5. *Gauge calibration*

INSTRUCTOR

FEBRUARY 24, 1989
DATE

W.F. TROXLER
PRESIDENT

№ 25940