September 24, 2008

United States Nuclear Regulatory Commission
Region IV
Texas Health Resources Tower
612 E. Lamar Blvd., Suite 400
Arlington, TX 76011-4125

Dear Sir/Madam:

Following is a request for an amendment to Western Sugar, Torrington WY location, license **# 49-27505-01** to change the Radiation Safety Officer. Mr. David Cummings is no longer with the company. The new RSO is Mrs. Ramona Moody. This individual is a Chemist by training and will be taking a class from Engelhardt & Associates, Inc. in Portland OR. The training documents from this class are attached. We have also attached a copy of the license for Engelhardt & Associates, Inc. to provide services. Please note, Western Sugar does not perform any non-routine maintenance on gauges.

Please feel free to contact me at 307-532-7141.

Sincerely,

Daniel E. Mashue
General Manager

Certificate of Completion

awarded to

Ramona Moody

for participation in

Radiation Safety Training – Portland, OR
September 15-17, 2008

ENGELHARDT & ASSOCIATES, INC.
RADIATION CONSULTANTS
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Susan J. Engelhardt, M.S.

Joshua Walkowicz, M.S., CHP

Ralph Grunewald, Ph.D.

Judith Grunewald, R.N., M.S.

Michael T. Smith, A.S., EMT-P

Name: Ramona Moody
Date: 09/17/08

NUCLEAR GAUGE
RADIATION SAFETY EXAM

1. True and False

a.	T	(F)	Long term radiation exposure (chronic) is more hazardous to your health than a dose delivered over a short period of time.
b.	T	(F)	Radiation safety training is recommended but not required for persons working with radiation.
c.	(T)	F	If a gauge is damaged, it must be assumed that a hazard exists.
d.	(T)	F	Time, distance and shielding are appropriate methods of radiation protection .
e.	T	(F)	Survey meters have to be calibrated only when you change the batteries.
f.	T	(F)	All survey meters operate the same way so it doesn't matter which meter you purchase.
g.	T	(F)	Any person who has the potential to work with radiation must wear a radiation dosimeter
h.	(T)	F	Each gauge is designed for a specific purpose so care must be taken before changing location of the gauge
i.	T	(F)	It is okay to post an area "Caution: Radiation Area," even if the exposure rate is less than 5 mR/Hr.
j.	(T)	F	Typically, leak tests are performed at 6 month intervals and in some cases, at 3 year intervals
k.	(T)	F	Loss of a source is reportable to the regulators as soon as one knows its gone

2. Matching

a.	Geiger Counter	a	A survey instrument
b.	Dosimeter	c	Transmission gauge
c.	Measures between source and detector directly	b	Luxel badge
d.	Measures source integrity	d	Leak test

3. Multiple Choice

a. Radiation survey meters must be calibrated at least every:
   1). Each three months
   2). Each six months
   3). Each three years
   (4). At least annually

b. Sealed sources must be leak tested at least every:
   1). Annually
   (2). Each six months
   3). Each three years
   4) Leak tests are never required.
   5) None of the above

c. Which of the following materials are suitable as shielding for gamma radiation
   1). Concrete
   2). Lead
   3). Steel
   4). Water
   (5). All of the above

d. The United States Nuclear Regulatory Commission regulates which of the following
   1). Radioactive materials made in a nuclear reactor
   2) X-ray equipment
   3) Radioactive materials that are made in a cyclotron
   4) None of the above

e. If an individual were to remain continuously present in a high radiation area of 120 mrem per hour for a period of ten minutes, he/she would receive an exposure of approximately:
   1.) 0.02 mrem
   2). 2 mrem
   3). 20 mrem
   4). 200 mrem

f. Which of the following are true about warning lamps on a gauge:
   1). A red light means that the shutter is open
   2). A green light means that the shutter is closed
   3). A white/amber light usually means that the gauge is in standby (there is power to the system but the shutter is closed)
   4). If none of the indicator lamps are illuminated, one should assume that the shutter is open.
   5) All of the above
   6). None of the above

g. How can a nuclear gauge be disposed of:
   1). Sell to the highest bidder
   2). Sell/transfer to a facility with a license to receive the unit
   3). Return to the manufacturer
   4) Either 2 or 3
   5). None of the above

h. Which of the following environmental conditions may damage a gauge
   1). Heat
   2). Extreme dirt
   3) Excessive moisture
   4) Vibration
   5) All of the above
   6). One of the above

i. Which of the following are considered routine maintenance on a gauge
   1). Checking the shutter mechanism
   2). Standardizing the system
   3). Performing lockout/tagout
   4). Performing leak tests
   5) All of the above
   6). None of the above

4. True or False

a.	T	F	Anyone can install sources into gauge house assemblies
b.	T	F	Special training is required to perform non-routine maintenance on a gauge.
c.	T	F	Gauges may be designed for a specific purpose so care must be taken in moving a gauge from one location to another in a plant/mill
d.	T	F	A sign that says "Caution Radioactive Materials" is posted wherever radioactive materials are used or stored

e.	T	F	A sign that says "Caution Radiation Area" means that nobody can go into the area because the radiation levels are so high that it will kill you
f.	T	F	ALARA only applies to Nuclear Power Plants
g.	T	F	100 mrem/year is the allowable limit for a radiation worker
h.	T	F	5000 mrem/year is the allowable limit for a radiation worker
i.	T	F	It is okay to post an area with the sign "Caution: High Radiation Area" even if the exposure is less than 100 mrem/hour
j.	T	F	Security is not an issue with gauges because nobody knows what they are anyway.
k.	T	F	The Radiation Safety Officer is responsible for the day to day radiation safety program activities, such as audits, training, licensure and such.
l.	T	F	Management has nothing to do with the operation of the radiation safety program
m.	F	T	Badges are required when a worker has the potential to exceed 10% of the occupational dose limits
n.	T	F	ALARA means keeping all radiation exposures as low as reasonably achievable, through employee training and awareness programs, engineering controls and performance based assessment of worker competency with radioactive materials
o.	T	F	Written radiation safety programs and audits of programs are only required for large users of rdioactive materials
p.	T	F	Inverse square means that as you double the distance from a source of radiation you will decrease the exposure by a factor of 4 (for gamma point sources) $I \propto k\frac{1}{d^2}$
q.	T	F	Contamination is the presence of radioactive materials where it is not wanted

5. Describe Lock out tag out for a gauge do a survey after lock is applied
lock out/tag out is the process to lock a gauge from being changed by anyone other than persons allowed to work on it, you would lock the gauge closed to ensure that someone could not open it if it did not need opened

6. Describe actions to be taken in the event of an emergency with a gauge
Secure the area, remove all persons not trained, survey the area for potential danger to determine distance from source that is safe, if not safe remove all persons from situation, determine harm, do not work on gauge if your licen does not allow it. call manufacturer or some one to come fix it. only work within the scope

7. Matching

a.	"Caution Radioactive Material"	d	100mrem/year
b.	"Caution: High Radiation Area"	e	5000mrem/year
c.	"Caution Radiation Area"	c	5mR/Hour
d.	Allowable limit for a member of Public	b	100mR/Hour
e.	Allowable limit for a radiation worker	a	Posted where radioactivity is used or stored

8. Multiple Choice
a. Which of the following are non-routine maintenance on a gauge
1) Installation
2) Relocation
3) Source installation
4) Repair of the source housing
5) All of t he above
6) None of the above

look at it
leak test
open/close shutter
lubrication of shutter

b. Which of the following apply to restricted areas
   1). Access is controlled for purposes of radiation protection
   2). Area is posted accordingly
   3). Access is controlled for whatever reason the plant wants to control it for
   4). There is no such thing as a restricted area
   5). Two of the above

c. Which of the following are components of a device registration:
   1). What the gauge is intended to be used for
   2). Conditions under which the gauge can operate
   3). Safety evaluation of the gauge including the safety features
   4). Engineering properties of the gauge
   5). All of the above

9. What is the dose from a 1 Ci Cs-137 source at 1 foot from the source and at 2 feet from the source. Remember that D = 6CE/distance squared

D = Dose in R/Hr.
C = Activity in Curies
E =Energy in MeV (for Cs-137 this is .662MeV)

$D = \frac{6CE}{d^2}$

$D = \frac{6(1)(.662)}{1^2}$

$D = 3.97\ R/hr$

$D = \frac{6CE}{d^2}$

$D = \frac{6(1)(0.662)}{2^2}$

$D = 0.993\ R/hr$

Radiation Safety Seminar

September 15-17, 2008

Portland, OR

Day One	Description	Objectives	Trainer(s)
07:30 – 8:00 a.m.	Continental Breakfast	Not Applicable (NA)	
08:00 – 08:10	Seminar Objectives/Overview	Explain seminar objectives and meet trainers.	Sue Engelhardt
08:10 – 08:30	Radiation and Its Uses (Chapter 1) • Ionizing radiation and radioactive decay • Contemporary applications	Relate the basic properties of ionizing radiation. List common applications of ionizing radiation in industry, research and medicine.	Sue
08:30 – 08:50	Regulatory Agencies and Licensing (Chapter 2) • Where regulatory standards come from • NRC vs. Agreement States • Other agencies (e.g., OSHA, FDA, EPA, DOT)	Relate how the NRC regulations are developed. Define difference between Agreement vs. Non-Agreement states. Recognize how other agencies regulate radiation.	Sue
08:50 – 09:00	Break	NA	
09:00 – 10:30	Radiation Physics (Chapter 5) • Atomic composition, structure, and terms • Radioactive decay and half-life • Properties of common decay products • Radioactive decay modes and schemes • Interactions with matter	Relate the basic atomic structure and common terms. Define half-life and radioactive decay. Describe basic properties of alpha, beta, x-ray, & gamma. Recognize the basic radioactive decay modes and emission characteristics. Compare interaction mechanisms (directly vs. indirectly ionizing).	Ralph Grunewald
10:30 – 11:30	Group Sessions	See Performance Objectives for Group	All
11:30 – 12:30 p.m.	Lunch	NA	
12:30 – 01:00	Radiation Units (Chapter 6) • Exposure units • Dose and dose equivalent units • Energy transfer (LET, QF)	Identify the difference between exposure and dose. Relate the traditional and SI units for exposure (R C/kg), dose (rad, Gy), and dose equivalent (rem, Sv). Examine linear energy transfer and quality factors as these pertain to biological effectiveness.	Josh Walkowicz
01:00 – 01:20	Common Sources of Radiation (Chapter 6) • Naturally occurring • Medical	Relate typical levels of radiation from common sources.	Michael Smith

Day One (continued)	Description	Objectives	Trainer(s)
01:20 – 01:30	Break	NA	
01:30 – 02:20	Regulatory Dose Limits and Radiation Dosimetry (Chapter 7) • Dose limits (public vs. occupational) • Types of dosimeters; how they work • Personnel monitoring requirements • Dosimetry reporting requirements	Identify the regulatory dose limits for radiation workers, the embryo/fetus of a declared pregnant woman, and members of the public. Explain types of personnel dosimeters and their limitations. Relate monitoring and reporting requirements.	Josh
02:20 – 02:30	Break	NA	
02:30 – 03:00	Radiation Biology (Chapter 9) • Cellular, tissue, and systemic effects • Delayed effects, early somatic effects • Acute radiation syndrome • Hormesis, threshold vs. non-threshold	Describe the biological effects of radiation and the dose levels where these effects occur. Contrast perceived vs. real risk.	Josh
03:00 – 04:00	Group Sessions	See Performance Objectives for Group	All

Day Two	Description	Objectives	Trainer(s)
07:30 – 08:00 a.m.	Continental Breakfast	NA	
08:00 – 09:40 (10 min. break)	Radiation Detection and Measurement (Chapter 10) • Types of equipment • Appropriate uses • Demonstration of equipment • Self-reading dosimeters	Describe how to select and operate equipment for the different types of radiation. Identify the basic design principles of various detectors.	Ralph
09:40 – 09:50	Break	NA	
09:50 – 10:40	Radiation Protection (Chapter 11) • ALARA • Methods for protection • Posting and labeling requirements	Explain what ALARA is and how to implement. Describe methods used for radiation protection (e.g., time, distance, shielding, contamination control). Apply inverse square law. Recognize when and where to post signs and apply labels.	Josh

Day Two (continued)	Description	Objectives	Trainer(s)
10:40 – 11:30	Group Sessions	See Performance Objectives for Group	All
11:30 – 12:30 p.m.	Lunch	NA	
12:30 – 01:30	Radiation Incidents and Emergency Response (Chapter 13) • Types (gauge, medical, academic) • Procedures • Source leakage, loss • Emergency personnel as responders • Performance based training • Interactions with public, media, and employees	Define the RSO's role in planning for and preventing accidents. Examine key components of an emergency plan.	Judy Grunewald
01:30 – 01:40	Break	NA	
01:40 – 02:30	Radiation Protection Programs (Chapter 3) • Written programs • Key elements (e.g., RSO/RSC, facility design, PPE, procedures, records, audits) • Annual reviews	Examine key elements of an effective radiation protection program. Assess record keeping requirements.	Josh
02:30 – 02:40	Break	NA	
02:40 – 03:00	Responsibilities for Radiation Protection (Chapter 16) • Who is responsible • Legal issues	Relate various responsibilities for radiation protection and regulatory compliance.	Michael
03:00 – 04:00	Group Sessions	See Performance Objectives for Group	All

Day Three	Description	Objectives	Trainer(s)
07:30 – 08:00 a.m.	Continental Breakfast	NA	
08:00 – 08:40	Packaging, Transport, and Receipt of Radioactive Materials (Chapter 15) • Shipper's responsibilities • Transportation regulations (NRC, DOT, IATA) • Classification and packaging • Transport on public roads • Receipt of radioactive materials	Define shipper's responsibilities and regulations affecting radioactive materials transportation. Describe basic packaging, marking, and labeling provisions for limited and Type A quantities. Describe DOT provisions for employee training and transport on public roads. Relate procedures for safe receipt of packages.	Michael
08:40 – 08:50	Break	NA	
08:50 – 09:40	NRC Regulations (Chapter 2) • Part 19, Notices, Instructions to Workers • Part 20, Radiation Protection Standards • Parts 30-35, license types and provisions • Special requirements (gauges and licenses)	Identify critical provisions of Part 19 and 20 worker information and protection standards. Identify NRC license and registration requirements (e.g., exempt, general, specific). Interpret basic provisions for specific license categories (e.g., manufacture, broad scope, radiography, medical use, irradiators).	Josh
09:40 – 09:50	Break	NA	
09:50 – 10:30	Regulatory Inspections (Chapter 17) • How to prepare for NRC/state inspections • How to deal with inspectors • What to do if the inspection is going badly • What to do if called for an enforcement conference • Interactions with the public and media	Relate the inspection process. Explain how to prepare for and respond to enforcement activities. Define the NRC's media notification criteria. Define key aspects of communicating with the public and media.	Sue
10:30 – 11:20	Group Sessions – Key aspects for writing a license • New, renewal, & amendment applications • Content, fees Reportable incident scenarios • When to/not to report an incident • Interactions with the public and media	Identify references available for assistance when writing a license (e.g., NRC Regulatory Guides). Identify key aspects (do's, don'ts) for writing a license. Discuss incident scenarios and Identify NRC requirements for reporting incidents and misadministrations (medical).	All
11:20 – 12:00	Group Sessions – Examination	Complete exam and score 85% or better.	All

Radiation Safety Seminar
Performance Objectives for the Gauge Group

These performance objectives are tailored to the participants' needs. Each session is approximately one hour.

Day One: Morning Session

- Relate physics and interactions of radiation with matter as it pertains to common radionuclides used in gauges.
- Compare slides on specific operation of many types of gauges (to understand common types of gauges and how they work).
- Recognize general characteristics of source capsule configuration and shutter designs.
- Calculate radioactive decay.

Day One: Afternoon Session

- Recognize the use of various gauge types
- Differentiate what you can and cannot do with gauges with regards to maintenance and repair.
- Demonstrate opening and closing shutters (both cylinder and flat swing type).
- Define badge requirements - who needs them, why, etc.
- Recognize difference between device registrations and general/specific licenses for gauges.

Day Two: Morning Session

- Examine gauges/dummy sources.
- Observe proper lockout/tagout demonstration and then lockout/tagout a gauge (hands-on).
- Differentiate what signs are needed in experimental settings.
- Describe ALARA strategies for mills/gauges.
- Demonstrate time, distance, and shielding principles.
- Demonstrate survey procedures - exposure rate monitoring, leak tests, and wipe tests.
- Calculate dose from a point source.

Day Two: Afternoon Session

- Identify responsibilities of the RSO for the radiation safety program.
- Recognize emergency preparedness and response.
- Perform leak tests.
- Demonstrate radiation measurements with a Geiger counter and an ionization chamber around sources to observe how radiation is shielded, collimated, and scattered.
- Demonstrate radiation measurements of a source through various shielding materials to observe attenuation.
- Demonstrate radiation measurements of a source at various distances to understand the inverse square law.
- Define how to receive and ship a radioactive package.

Radiation Safety Seminar
Performance Objectives for the Medical Group

These performance objectives are tailored to the participants' needs. Each session is approximately one hour.

Day One: Morning Session

- Restate the regulatory structure for various types of radiation and radioactive materials commonly used in medicine.
- Examine alpha, beta, and gamma decay processes and interactions with matter.
- Define and convert between various radioactivity units (Ci, Bq, dpm, dps).
- Calculate radioactive decay both forward and backward in time.
- Calculate attenuation of radiation.

Day One: Afternoon Session

- Define NRC dose limits and personnel dosimetry requirements - who needs dosimeters, when, why, etc.
- Recognize regulatory requirements and NRC licensing process for medical uses.
- Define personnel bioassays for radioactive materials commonly used in medicine.
- Examine radiation risk vs. benefit issues.

Day Two: Morning Session

- Recognize various types of detectors for beta and gamma radiation (e.g., GM, LEG, HEG), and how to select appropriate detectors (e.g., for dose surveys vs. contamination surveys).
- Demonstrate how to perform function tests (hands-on) and understand calibration requirements for survey meters commonly used in medical settings.
- Compare patient release after nuclear medicine procedures vs. non-release of radioactivity from the research setting.
- Describe practical radiation protection measures (e.g., use of time, distance, shielding, contamination control) and ALARA strategies for medical settings.
- Demonstrate how to conduct wipe tests and leak tests for removable contamination.
- Differentiate NRC required radiation warning signs, labels, postings, etc. needed in experimental settings.
- Calculate dose from a point source.

Day Two: Afternoon Session

- Identify RSO responsibilities and the critical components of a radiation safety program in a medical facility.
- Describe Quality Management Program and written directive requirements.
- Identify effective auditing techniques.
- Describe NRC requirements for training (frequency, content, etc.).
- Examine radiation emergency preparedness and response for incidents likely to occur in a medical setting.
- Explain how to receive/ship a radioactive package.
- Describe radioactive waste management and setting up a decay in storage procedure.

Radiation Safety Seminar
Performance Objectives for the Research Group

These performance objectives are tailored to the participants' needs. Each session is approximately one hour.

Day One: Morning Session

- Restate the regulatory structure for various types of radiation and radioactive materials commonly used in research.
- Examine alpha, beta, and gamma decay processes and interactions with matter.
- Define and convert between various radioactivity units (Ci, Bq, dpm, dps).
- Calculate radioactive decay.
- Calculate attenuation of radiation.

Day One: Afternoon Session

- Examine NRC dose limits and personnel dosimetry requirements - who needs dosimeters, when, why, etc.
- Restate regulatory requirements and NRC licensing process for research related use.
- Explain personnel bioassays for radioactive materials commonly used in research.
- Contrast radiation risk vs. benefit issues.

Day Two: Morning Session

- Recognize various types of detectors for beta and gamma radiation (e.g., LSC, GM, LEG), and how to select appropriate equipment (e.g., for exposure rate monitoring vs. radioanalyses).
- Demonstrate how to perform function tests (hands-on) and understand calibration requirements for survey meters commonly used in research facilities.
- Describe practical radiation protection measures (e.g., use of time, distance, shielding, contamination control) and ALARA strategies for research settings.
- Demonstrate how to conduct wipe tests and leak tests for removable contamination.
- Differentiate NRC required radiation warning signs, labels, postings, etc. needed in experimental settings.
- Calculate dose from a point source.

Day Two: Afternoon Session

- Identify RSO responsibilities and the critical components of a radiation safety program in a research facility.
- Describe effective auditing techniques.
- Describe NRC requirements for training (frequency, content, etc.).
- Examine emergency preparedness and response for incidents likely to occur in a research setting.
- Explain how to receive/ship a radioactive package.
- Describe radioactive waste minimization, management, and disposal (including decay in storage) for radioactive materials commonly used in research.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
RADIOACTIVE MATERIAL LICENSE

Pursuant to the Atomic Energy and Radiation Control Act, Section 13-7-40 et.seq. of S.C. Code of Laws of 1976, as amended, and Supplements thereto, and the South Carolina Department of Health and Environmental Control Regulation 61-63, Radioactive Material (Title A), and in reliance on statements and representations heretofore made by the applicant, a license is hereby issued authorizing the licensee to receive, acquire, possess and transfer radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules and regulations of the South Carolina Department of Health and Environmental Control now or hereafter in effect and to any conditions specified below.

Amendment No. 1 amends

LICENSEE	3. License Number:
1. Name: Compliance Management Associates, A wholly owned subsidiary of Engelhardt & Associates, Inc.	856 in its entirety
2. Address: 8992 University Blvd., Suite 300E N. Charleston, SC 29406	4. Expiration Date: August 23, 2015

5. Radioactive Material (Element & Mass No.)	6. Chemical and/or Physical Form	7. Maximum Radioactivity and/or quantity of material which licensee may possess at any one time.
A. Any radioactive material	A. See Item 8.A. below.	A. See Item 8.A. below.
B. Cesium-137	B. Sealed source (AEA Technology Model #77302)	B. No single source to exceed 165 millicuries.
C. Strontium-90	C. Sealed source Registered pursuant to RHA 2.29, 10 CFR 32.210 or an equivalent Agreement State Regulations.	C. See Condition No. 17. B.
D. Krypton-85	D. Sealed source Registered pursuant to RHA 2.29, 10 CFR 32.210 or an equivalent Agreement State Regulations.	D. No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State.
E. Americium-241	E. Sealed source Registered pursuant to RHA 2.29, 10 CFR 32.210 or an equivalent Agreement State Regulations.	E. See Condition No. 17. B.

DHEC 812 (11/81)

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Radioactive Material License
Supplementary Sheet

License No. 856
Amendment No. 01

F. Cobalt-60	F. Sealed source Registered pursuant to RHA 2.29, 10 CFR 32.210 or an equivalent Agreement State Regulations.	F. See Condition No. 17. B.
G. Cesium-137	G. Sealed source Registered pursuant to RHA 2.29, 10 CFR 32.210 or an equivalent Agreement State Regulations.	G. See Condition No. 17. B.
H. Promethium-147	H. Sealed source Registered pursuant to RHA 2.29, 10 CFR 32.210 or an equivalent Agreement State Regulations.	H. See Condition No. 17. B.
I. Iron-55	I. Sealed source Registered pursuant to RHA 2.29, 10 CFR 32.210 or an equivalent Agreement State Regulations.	I. No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State.
J. Iron-59	J. Sealed source Registered pursuant to RHA 2.29, 10 CFR 32.210 or an equivalent Agreement State Regulations.	J. No single source to exceed the maximum activity specified in the certificate of registration issued by NRC or an Agreement State.
K. Curium-244	K. Sealed source Registered pursuant to RHA 2.29, 10 CFR 32.210 or an equivalent Agreement State Regulations.	K. See Condition No. 17. B.
L. Californium-252	L. Sealed source Registered pursuant to RHA 2.29, 10 CFR 32.210 or an equivalent Agreement State Regulations.	L. See Condition No. 17. B.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Radioactive Material License
Supplementary Sheet

License No. 856
Amendment No. 01

8. Authorized Use:

A. The licensee is authorized to perform tests for leakage and/or contamination upon customer owned devices containing sealed sources of radioactive material. The quantities and forms of radioactive material authorized are limited to those contained on swabs for analysis.

B. To be used in Technical Operations Model 773 calibrator for survey instrument calibration.

C. through L. For possession and/or use incident to:

1. Installation or removal of gauging devices at customer facilities.
2. Installation, relocation, repair (excluding source repairs), and servicing of Berthold, Ohmart, TN Technologies, Kay-Ray, Metso Automation USA, Inc. (formerly Valmet), DMC, IMS, AccuRay, ABB, Industrial Dynamics, Ronan, NDC Systems and Integrated Industrial Systems, Inc., Troxler/CPN gauging devices at customer facilities; and
3. Instruction and training of individuals in the use of gauging devices at customer facilities and at specified locations throughout the United States.

Conditions

9. A. Licensed material specified in Item 5.B. shall only be used at licensee's facility located at 8992 University Blvd., Suite 300E, N. Charleston, SC 29406.

B. Licensed material specified in Items 5.C. through 5.L. may be used at the licensee's customer locations anywhere in South Carolina where the Department of Health and Environmental Control maintains jurisdiction for regulating the use of licensed material.

10. The licensee shall comply with the provisions of Title A, State of South Carolina Rules and Regulations for Radiation Control; Part I - General Provisions; Part II - Licensing of Radioactive Materials; Part III - Standards for Protection Against Radiation; and Part VI - Notices, Instructions, and Reports to Workers; Inspections.

11. The Radiation Safety Officer for this license is Susan J. Engelhardt and the Assistant Radiation Safety Officer is Michael T. Smith.

12. Radioactive material shall be used by, or under the supervision of, and in the physical presence of: Susan J. Engelhard, Michael T. Smith, Joshua Walkowicz, Ralph Grunewald or Judy Grunewald.

13. The licensee is authorized to transport licensed material only in accordance with the provisions of RHA 2.22, "Packaging and Transportation of Radioactive Material."

14. Sealed sources containing licensed material shall not be opened or sources removed from source holders by the licensee.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Radioactive Material License
Supplementary Sheet

License No. 856
Amendment No. 01

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

16. The licensee shall conduct a physical inventory every six (6) months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for inspection by the Department and shall include the quantities and kinds of licensed material, location of sealed sources, and the date of the inventory.

17. A. Except as specifically provided otherwise, the licensee shall possess and use radioactive material described in Items 5, 6, and 7 of this license in accordance with statements, representations, and procedures contained in the following documents.

    a. License application dated July 24, 2007, signed by Susan J. Engelhardt.
    b. Letter with attachments dated September 4, 2007, signed by Susan J. Engelhardt.
    c. Letter with attachment dated October 18, 2007.

    B. The licensee shall not possess radioactive material in quantities at or above the limits in Table 1. Radionuclides of Concern.

Date of Issuance: November 26, 2007

For the South Carolina Department
of Health and Environmental Control

By: _____

Aaron A. Gantt, Chief
Bureau of Radiological Health

DHEC 812 (11/81)

ACCEPTANCE REVIEW MEMO (ARM)

Licensee: Western Sugar Cooperative, The

License No.: 49-27505-01

Docket No.: 030-333703

Mail Control No.: 471980

Type of Action: Amend

Date of Requested Action: 09-24-08

Reviewer Assigned:

ARM reviewer(s): Torres

Response	Deficiencies Noted During Acceptance Review
	[ ] Open ended possession limits. Submit inventory. Limit possession. [ ] Submit copies of latest leak test results. [ ] Add IC L.C./Fingerprint LC, add SUNSI markings to license. [ ] Confirm with licensee if they have NARM material.

Reviewer's Initials: _____ **Date:** _____

☐Yes ☐No Request for unrestricted release Group 2 or >. Consult with Bravo Branch.

☐Yes ☐No Termination request < 90 days from date of expiration

☐Yes ☐No Expedite (medical emergency, no RSO, location of use/storage not on license, RAM in possession not on license, other)

☐Yes ☐No TAR needed to complete action.

Branch Chief's and/or HP's Initials: _____ **Date:** _____

SUNSI Screening according to RIS 2005-31

☐Yes ☑No **Sensitive and Non-Publicly Available** if any item below is checked

General guidance:

_____RAM = or > than Category 3 (Table 1, RIS 2005-31), use Unity Rule
_____Exact location of RAM [suite #, bldg. #, location different from mailing address] (whether = or > than Category 3 or not)
_____Design of structure and/or equipment (site specific)
_____Information on nearby facilities
_____Detailed design drawings and/or performance information
_____Emergency planning and/or fire protection systems

Specific guidance for medical, industrial and academic (above Category 3):

_____RAM quantities and inventory
_____Manufacturer's name and model number of sealed sources & devices
_____Site drawings with exact location of RAM, description of facility
_____RAM security program information (locks, alarms, etc.)
_____Emergency Plan specifics (routes to/from RAM, response to security events)
_____Vulnerability/security assessment/accident-safety analysis/risk assess
_____Mailing lists related to security response

Branch Chief's and/or HP's Initials: RTR **Date:** NOV - 5 2008

NOV - 6 2

DATE

This is to acknowledge the receipt of your letter/application dated 9-24-08, and to inform you that the initial processing, which includes an administrative review, has been performed.

☒ There were no administrative omissions. Your application will be assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card:

The action you requested is normally processed within 90 days.

☐ A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 471980.
When calling to inquire about this action, please refer to this mail control number.
You may call me at 817-860-8103.

Sincerely,

Colleen Monahan

Licensing Assistant

NRC FORM 532 (RIV)
(10-2006)

	:	(FOR LFMS USE)
	:	INFORMATION FROM LTS
BETWEEN:	:	----------
	:	
License Fee Management Branch, ARM	:	Program Code: 03120
and	:	Status Code: 0
Regional Licensing Sections	:	Fee Category: 3P
	:	Exp. Date: 20150228
	:	Fee Comments: _____
	:	Decom Fin Assur Reqd: N
	::	:::

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
   Applicant/Licensee: WESTERN SUGAR COOPERATIVE, THE
   Received Date: 20081001
   Docket No: 3033703
   Control No.: 471980
   License No.: 49-27505-01
   Action Type: Amendment

2. FEE ATTACHED
   Amount: /
   Check No.: /

3. COMMENTS

Signed Colleen Burnham
Date 10-30-08

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

1. Fee Category and Amount: _____

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

3. OTHER _____
   _____

Signed _____
Date _____

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...x ...Diego

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471980

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Region IV
Texas Health Resources Tower
612 E Lamar Blvd, Ste 400
Arlington TX
76011-4125

...uals Licensing