

Raymond L. Cooper

To: Hammond, Michelle
Subject: RE: REQUEST FOR ADDITIONAL INFORMATION

Ms. Hammond,
I still cannot get e-mails to you, so I am faxing this. Also, I have attached a copy of the rejected e-mail as you requested earlier.

Thank you,
Ray

RECEIVED**APR 15 2013**

Dear Ms. Hammond,

DNMS

Attached, you will find several documents concerning Jason Ross.

His contact information is: jmross@westernsugar.com
His (shared) desk # is: 307-532-6749
His Cell # is: 308-631-4140

He has been an Electrician and an Instrumentation Technician for us here in Torrington since 2008. His experience includes gauge inventories, shutter checks, Lock Out/Tag Out and sign verifications. He attended Ms. Engelhardt and Associates, Inc. on-site Radiation Safety Training here in Torrington in 2009, 2011 and 2012. This year he recently completed the three day off-site training with them as well. Attached, you will find his Certificate of Completion and his exam for this year's course, as well as the attendance roster for the three on-site sessions that he has attended.

If you require any further documentation or have any other questions, please do not hesitate to call me.

Thank you,
Ray Cooper
Plant Manager
The Western Sugar Cooperative, Torrington, WY
307-532-6723

From: Hammond, Michelle [<mailto:Michelle.Hammond@nrc.gov>]
Sent: Monday, April 15, 2013 9:16 AM
To: Raymond L. Cooper
Cc: 'sengelhardt@wi.rr.com'
Subject: Re: REQUEST FOR ADDITIONAL INFORMATION

License No.: 49-27505-01
Docket No.: 030-33703
Control No.: 580084

PUBLIC

- ☐ Immediate Release
☒ Normal Release

NON-PUBLIC

- ☐ A.3 Sensitive-Security Related
☐ A.7 Sensitive Internal
☐ Other:

Reviewer: **Date:** 5/15/13

Dear Mr. Cooper (Factory Manager) and/or Sue Engelhardt:

This is in reference to your amendment request application dated received February 21, 2013 regarding Nuclear Regulatory Commission License No. 49-27505-01. In order to continue our review, we need the following additional information:

Hammond, Michelle

From: Hammond, Michelle
Sent: Monday, April 15, 2013 10:16 AM
To: 'rlcooper@westernsugar.com'
Cc: 'sengelhardt@wi.rr.com'
Subject: Re: REQUEST FOR ADDITIONAL INFORMATION

License No.: 49-27505-01
Docket No.: 030-33703
Control No.: 580084

Dear Mr. Cooper (Factory Manager) and/or Sue Engelhardt:

This is in reference to your amendment request application dated received February 21, 2013 regarding Nuclear Regulatory Commission License No. 49-27505-01. In order to continue our review, we need the following additional information:

- 1) Please provide the phone number(s) and e-mail address for the proposed RSO. [Jason Ross](#)
- 2) Please provide the Jason's Radiation Training Certificate (6/21/12 from Engelhardt & Associates)
- 3) Please provide the Jason's experience with Fixed Gauge devices and/or Radiation Safety involving fixed gauge devices.

We will continue our review upon receipt of this information. Please reply to my attention at the Region IV Office and refer to Mail Control No. 580084. Please respond to this e-mail by **ASAP, you currently do not have a Radiation Safety Officer on your license and this needs to be resolved ASAP to bring you in compliance.** You may reply via e-mail as long as the response is attached in a PDF format or by fax to 817-200-1188.

Please don't hesitate to contact me if you have any questions.

Best Regards,

*Michelle M. Hammond, M.Sc.
Health Physicist
Region IV-Division of Nuclear Materials Safety, Branch B
office) 817-200-1127
fax) 817-200-1188*



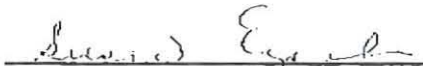
Certificate of Completion
awarded to
Jason Ross

for participation in
Radiation Safety Training – Tampa, FL
April 9 – 10, 2013



ENGELHARDT & ASSOCIATES, INC.

RADIATION CONSULTANTS
3200 S. Stonegate Circle, #204
New Berlin, WI 53151
PH: 262-439-2111 FAX: 262-439-2112
E-mail: engel@chorus.net
www.radexperts.com



Susan J. Engelhardt, M.S.

Paula Sue

NAME Paula Sue
DATE 4-10-13

RADIATION SAFETY EXAMINATION

True or False

1. T ☒ F Long-term (chronic) exposure to low levels of radiation is more hazardous to health than exposure to a large amount of radiation over a short period of time (acute exposure).
2. ☒ T F Time, distance and shielding are appropriate methods of minimizing exposure to radiation.
3. ☒ T F If a gauge is damaged, one must assume there is a hazard
4. ☒ T F An unnecessary exposure to radiation is an excessive exposure.
5. T ☒ F Radiation safety training is recommended, but not required for individuals working with radiation
6. ☒ T F ALARA means keeping exposures to radiation as low as reasonably achievable
7. T ☒ F Anyone can be assigned a radiation dosimeter, even if they have no training

Match

8. a. Geiger counter h Personnel dosimeter
- b. Film badge c Check of source integrity (leakage)
- c. Leak test a Exposure rate meter
- d. Wipe test d Contamination check (labs, etc)
- e. Inverse square e Double distance from a source; decrease exposure by 4

Multiple Choice

9. Radiation survey meters must be calibrated at least every:
- a. 3 months
 - b. 6 months
 - c. ☒ year
 - d. 3 years
10. Sealed sources must be leak tested every:
- a. ☒ 6 months
 - b. Year
 - c. Never
 - d. 3 years
11. An area where radioactive material is stored must be posted with a sign bearing the warning:
- a. Keep Out
 - b. ☒ Caution - Radioactive Materials
 - c. ☒ Caution - Radiation Area
 - d. No posting required
12. An area bearing the sign Caution: Radiation Area means:
- a. Its okay to come on in
 - b. Radiation exposures are 5mR/ hour but not over 100 mR/h in the area
 - c. Only qualified personnel can enter the area
 - d. A badge must be worn to enter the area
 - e. ☒ Two of the above
13. If an individual were to remain continuously present in a radiation area of 120 millirem per hour for 10 minutes, he would receive an exposure of approximately:
- a. 0.2 millirem
 - b. 2 millirem
 - c. ☒ 20 millirem
 - d. 200 millirem

14. Which of the following materials are appropriate forms of shielding for gamma radiation?
- a. Concrete c. Steel
b. Lead d. a, b, and c
15. If an incident occurred with a gauge/ a spill in a lab/ an exposure to X-Rays which caused or threatened to cause an exposure to a worker in excess of regulatory limits, how soon would the appropriate regulatory agency have to be notified?
- a. Immediately c. Within 30 days
b. Within 24 hours d. The regulations require different notification times depending on the circumstances
16. Which environmental conditions can damage radiation producing machines
- A. Extreme temperatures c. Exposure to caustic chemicals
b. Extreme vibration d. a, b, c

Answer the following questions

17. What is the difference between being irradiated and being contaminated?

Irradiation is defined as being exposed to radiation
contamination this is defined as having radioactive
substance on you

18. What is the difference between a millicurie and a millirem?

Activity Dose

19. Describe the process for doing a leak test?

Use a Q-tip and wipe along welds and around
the shutter assembly
Follow directions on kit

Describe the actions to be taken if the source is found to be leaking:

Notify NRC, Manufacturer
Secure going + area

20. Describe the Lock-out/Tag-out/Try procedure:

Lock device out with personal lock
Tag device out writing name / date / lock
Try the device to make sure it is properly off

21. What are the steps to using a survey meter

- Check calibration date
- Check battery charge
- Check background
- Check w/ dedicated source
- Turn meter off

22. Name three duties of the radiation safety officer:

Do checks - licensing, program, regulations
Make sure Radiation Safety Program is in place and enforced
Documentation of all

23. Who is responsible for radiation safety at your facility?

The ISO -
Erigen

24. What is the difference between a fixed gauge and a portable gauge

A fixed gauge is bonded to a vessel, etc. and cannot be moved
A portable can be moved and is designed to be moved

25. T ☒ F Anyone can transport radioactive materials

26. T ☒ F You have one year to notify the NRC/Agreement State if you lose a portable gauge

27. T F Security is of no concern with radioactive materials
28. T F If a shutter is stuck on a gauge, just whack it with a hammer
29. T F It's okay to post an area "Caution Radiation Area" even if the exposure rate is less than 5 mrem/hr.
30. T F The double restraint rule means that you must have 2 lockdowns for gauges that are in storage or transport

31. a. "Caution: Radiation Area" 100 100 mrem/yr
- b. "Caution: High Radiation Area" 5000 5000 mrem/yr
- c. "Caution: Radioactive Material" 5 5 mR/Hr
- d. Allowable limit for radiation worker 100 100 mR/Hr
- e. Allowable limit for member of the general public Posted wherever radioactivity is used or stored

32. Calculate the exposure rate from a 100 mCi ^{137}Cs point source at 1 foot from the source and at 2 feet.

We know the following

$$D = 6CE/d^2$$

$$D \text{ (dose rate)} = R/\text{Hour}$$

$$C \text{ (activity)} = \text{Ci}$$

$$E \text{ (energy)} = 0.66\text{MeV}$$

$$D \text{ (distance)} = \text{ft}$$

33. List 4 factors that influence X-Ray output:

- a. Volts/kV
- b. Tube age-time
- c. Filteration
- d. anode rotation

34. What should you do if you find a shutter stuck open on an X-Ray machine?
What would you do if you do if you found an X-Ray machine that had too much radiation exposure around it which would put it out of spec for sales purposes.

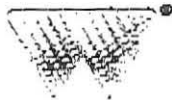
Turn the power to the unit

35. Why must a person have special training in order to install, relocate or repair a gauge

They should have the special training so that they know how to safely and effectively work with the gauge

36. Describe what actions are to be taken in the event of a fire in the vicinity of a gauge.

The RSO must be notified and the fire out. Proper steps and checks need to be performed by the RSO.
That's all folks!!!



The Western Sugar Cooperative

(Grower Owned)

133
Jesse

TORRINGTON PLANT	ATTENDANCE
REPORT OF MEETING ACTIVITIES	D. Boettcher 11457
RETURN FORM TO LOCAL DIRECTOR AFTER MEETING	J. JACKSON 12498
MEETING DATE: 06/21/12	J. Ross 12076
TOPIC: Nuclear Training (Radiation Safety)	T. Ross 11058
NOTES:	ANTHONY WOODARD 11939
EMPLOYEES MUST WRITE OR PRINT THEIR NAMES LEGIBLY OR WILL NOT BE CREDITED WITH THE TRAINING! MUST ALSO INCLUDE EMPLOYEE NUMBER	LARRY DISNEY 11042
	JOHN H. HUNT 12161
MEETING CONDUCTED BY: SUE ENGELHARDT Lisa Engelhardt	
POSITION TITLE: Radiation Consultant	

The Western Sugar Cooperative

(Grower Owned)

133
line

TORRINGTON PLANT

ATTENDANCE

REPORT OF MEETING ACTIVITIES

RETURN FORM TO LOCAL DIRECTOR AFTER MEETING

MEETING DATE:

06/07/11

TOPIC:

Radiation Safety Training

NOTES:

EMPLOYEES MUST WRITE OR PRINT THEIR NAMES LEGIBLY OR
WILL NOT BE CREDITED WITH THE TRAINING! MUST ALSO INCLUDE
EMPLOYEE NUMBER

Greg Fulk 20415

Doug 11058

Chris 11042

Chris 12061

Chris 12078

Chris 12108

Doug Haavay

Lamona Moody

SUGGESTIONS:

ANNOUNCEMENTS:

MEETING CONDUCTED BY:

Sue Engstrand

06/07/11

POSITION TITLE:

Pres. / CEO Engstrand & Associates, Inc.

No. 4053 P. 11/12

(Grower Owned)

TORRINGTON PLANT		ATTENDANCE	
REPORT OF MEETING ACTIVITIES		TMA 11058	
RETURN FORM TO LOCAL DIRECTOR AFTER MEETING		11027	
MEETING DATE: 6-11-09 #133		22415	
TOPIC: RADIATION REFRESHER FOR OPERATORS		12079	
NOTES:		11007	
EMPLOYEES MUST WRITE OR PRINT THEIR NAMES LEGIBLY OR		11457	
THEY WILL NOT BE CREDITED WITH THE TMA AND MUST ALSO INDUCE		11022	
EMPLOYEE NUMBER		11016	
		11900	
		11042	
		99601	
SUGGESTIONS:		ANNOUNCEMENTS:	
MEETING CONDUCTED BY: Susan Engelhardt			
POSITION TITLE: President, CEC, ENGELHARDT'S ASSOC. INC.			