

Radiation Measurement For Scrapyards and Landfills

COURSE INSTRUCTION

This course is given by Jim Menge, Certified Health Physicist of Thermo Fisher Scientific as well as other Thermo Fisher Scientific Staff. The course is \$99, and includes all course materials with full Lunch and coffee breaks, and a coupon for \$100 off of your next Thermo Fisher Field Service trip or any Field Service or Teleservice Contract.

TRAINING LOCATION

Thermo Fisher Oakwood Facility
One Thermo Fisher Way
Oakwood Village, Ohio 44146

This is a single-day course.

Nearby Hotels:

Holiday Inn Express: 440-786-1998

Hampton Inn Solon: 440-542-0400

To register, complete the information inside this brochure and fax or email with credit card information or PO number to:

Tony Rothermel

(anthony.rothermel@thermofisher.com)

Thermo Fisher Scientific

One Thermo Fisher Way
Oakwood Village, OH 44146 USA

Phone: +1 (440)703-1448

FAX: +1 (440)703-1596

You may also register online at:

<http://events.signup4.com/radtrainingMay2009>

Radiation Measurement For Scrapyards and Landfills

*A One-Day Course at Thermo Fisher
Scientific Radiation Measurements and
Security Instruments*

Oakwood Village, Ohio USA

February 9, 2010 9:00-4:30



Radiation Measurement

For Scrapyards and Landfills

COURSE DESCRIPTION

This course is intended for the Novice as well as experienced site personnel.

Universal basic radiation knowledge is presented. (Thermo and non-Thermo equipment)

Keep your staff informed and confident!

SEMINAR OUTLINE

Morning

Introduction

What is Radiation?
Types of Radiation
Time, Distance, Shielding
Activity vs Dose
Direct Radiation survey

Radiation

Radioactivity Structure
Stable vs radioactive atoms
Nuclear Decay Process
Half- Life, Units


Interactions with Matter

Detection

Types of Detectors
Personnel Monitoring Devices

Cell sensitivities Biological Effects

Radiation effects on cells
Radiation effects on Humans
External vs Internal
Acute vs Chronic
Exposure Risk
Units: REM, Sievert

 Natural Radiation Cosmic
Terrestrial, Radon, NORM

LUNCH

Afternoon

Hands On Exercises

Common radiological questions and Specific issues for the Scrap/Waste industry, such as:
Radiation Alarm response

- *Initial Evaluation*
- *Dosimetry and Protective Clothing*
- *Radiation and Contamination Survey*
- *Use of Instrument to locate and measure source*
- *Use of personnel monitoring devices*
- *Performance of radiation and contamination survey*

Some common questions for discussion:

What is Background radiation and how does it affect sensitivity?

I had scan alarms between 9% -200% above background, what is a dangerous level?

I've got a piece of pipe back from a load rejected at a steel mill, why doesn't it set off the alarm on my system?

The speed alarm is going off all the time; 5 mph is too low! Can we set it to 10 mph?

Readout data is in counts per second (cps), how does that relate to the intensity of the source in uR/hr?

The vehicle monitoring system alarmed, and I scanned the truck with my hand held, but couldn't find anything, why?

Once I get an alarm, what is the proper protocol for dealing with the alarm? Do I just send the load back on the street?

My monitor alarmed once, but I sent the truck through two more times and it didn't repeat, why did the load get rejected back to us?

Question and Answer as required

REGISTRATION FORM

Course Date, Feb 9, 2010

Please mail, email or fax this form to Tony Rothermel before Jan. 15, 2010

Class size limited to 25

Future dates will be added

fax: +1 (440) 703-1596,

Voice +1 (440)703-1448

anthony.rothermel@thermofisher.com

You may also enroll at: <http://www.Thermo.com>

Name: _____

Title: _____

Organization: _____

Address: _____

City: _____

State/ Province: _____

Country: _____

Phone: _____

Fax: _____

Email: _____

Website: _____

Additional courses I may be interested in: _____

Please contact Tony Rothermel with questions:

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