

CONTROL NUMBER : 318676

**ITEMS 5 & 6. MATERIALS TO BE POSSESSED AND PROPOSED USES**

Radioisotopes: Am-241:Be, Cs-137, and Ra-226:Be

Device manufacturer and models: Seaman Nuclear Corporation models C-300, C-200, and C-75. These are listed in the Sealed Source and Device Registry. For additional information see the enclosed page titled: "Devices and Sealed Source Details". Quantity: Not to exceed maximum activity per source as specified in Sealed Source and Device Registration Sheets.

The following devices are currently in our possession: Seaman Nuclear Corporation model: C-200 containing Ra-226:Be, We also plan on purchasing an additional model: C-200 containing Ra-226:Be , and a Troxler 3430 Plus or equal that would contain the following sources listed in the table below, for a total of up to 3 testing devices.

<b>Radiological</b>	
Gamma Source	0.30 GBq (8 mCi) $\pm$ 10% Cs-137
Neutron Source	1.48 GBq (40 mCi) $\pm$ 10% Am-241:Be
Source Housing	Stainless Steel Encapsulation
Shielding	Tungsten, lead, and cadmium
Surface Dose Rate (5 cm)	19 mrem/hr max., neutron and gamma
Source Rod Material	Stainless Steel
Shipping Case	DOT 7A, Type A, Yellow II label, TI = 0.3
Sealed Source Approved for Domestic and International Shipments	Special For

Use: Measuring the physical properties of construction materials as specified in Sealed Source and Device Registration Sheets.

Financial Assurance is Not Required. Quantities of material possessed will be less than limits specified in 10 CFR 30.35.

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**ITEM 7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE - RADIATION SAFETY OFFICER**

The RSO is Greg Dorge. The RSO has attended a portable gauge manufacturer's training course.

" Before obtaining licensed materials, the proposed RSO will have successfully completed one of the training courses described in Criteria in the section entitled 'Individual(s) Responsible for Radiation Safety Program and Their Training and Experience – Radiation Safety Officer' in NUREG-1556, Vol. 1, Rev. 1, 'Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Portable Gauge Licenses,' dated November 2001 "

We understand that the RSO will not be able to be changed internally, that the NRC must do that for us via the amendment process



Check  
Photo ID

**Missouri Department of  
Transportation**

**Greg Dorge**

has successfully completed Radiation Safety Officer Training  
conducted by MO State Emergency Mgt Agency and Mo Dept of  
Transportation in accordance with US DOT requirements of  
49 CFR 172, Subpart H and License Requirements from the  
US Nuclear Regulatory Commission

11/14/2008

**Tom Masso**  
**Radiation Safety Trainer**

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**ITEMS ALSO NOTED:**

The Portable Gauges in our possession are used at temporary job-sites. They are used to check compaction of material on construction sites.

## APPENDIX I

## Typical Duties and Responsibilities of the Radiation Safety Officer and Sample Delegation of Authority

### Model Radiation Safety Officer Duties and Responsibilities

The duties and responsibilities of the Radiation Safety Officer (RSO) include ensuring radiological safety and compliance with NRC and DOT regulations and the conditions of the license. Model procedures for describing the RSO's duties and responsibilities appear below. Applicants may either adopt these model procedures or develop alternative procedures to meet the requirements of 10 CFR 35.24. As a result of implementation of the EPAct, licensed material now includes accelerator-produced radioactive materials and discrete sources of Ra-226. Licensees authorized under 10 CFR 30.32(j) to produce and noncommercially transfer PET radioactive drugs to consortium members should review the model duties and responsibilities below, expanding on them as necessary to ensure radiation safety oversight of the production and transfer only to medical use consortium members.

Typically, these duties and responsibilities include ensuring the following:

- Unsafe activities involving licensed material are stopped;
- Radiation exposures are ALARA;
- Up-to-date radiation protection procedures in the daily operation of the licensee's byproduct material program are developed, distributed, and implemented;
- Possession, use, and storage of licensed material are consistent with the limitations in the license, the regulations, the SSDR certificate(s), and the manufacturer's recommendations and instructions;
- Individuals installing, relocating, maintaining, adjusting, or repairing devices containing sealed sources are trained and authorized by an NRC or Agreement State license;
- Personnel training is conducted and is commensurate with the individual's duties regarding licensed material;
- Documentation is maintained to demonstrate that individuals are not likely to receive, in 1 year, a radiation dose in excess of 10% of the allowable limits or that personnel monitoring devices are provided;
- When necessary, personnel monitoring devices are used and exchanged at the proper intervals, and records of the results of such monitoring are maintained;
- Licensed material is properly secured;
- Documentation is maintained to demonstrate, by measurement or calculation, that the total effective dose equivalent to the individual likely to receive the highest dose from the licensed operation does not exceed the annual limit for members of the public;
- Proper authorities are notified of incidents such as loss or theft of licensed material, damage to or malfunction of sealed sources, and fire;

APPENDIX I

- Medical events and precursor events are investigated and reported to NRC, cause(s) and appropriate corrective action(s) are identified, and timely corrective action(s) are taken;
- Audits of the Radiation Protection Program are performed at least annually and documented;
- If violations of regulations, license conditions, or program weaknesses are identified, effective corrective actions are developed, implemented, and documented;
- Licensed material is transported, or offered for transport, in accordance with all applicable DOT requirements;
- Licensed material is disposed of properly;
- Appropriate records are maintained; and
- An up-to-date license is maintained, and amendment and renewal requests are submitted in a timely manner.

Model Delegation of Authority

Memo To: Radiation Safety Officer  
 From: Chief Executive Officer  
 Subject: Delegation of Authority

You, Greg Dorge, have been appointed Radiation Safety Officer and are responsible for ensuring the safe use of radiation. You are responsible for managing the Radiation Protection Program; identifying radiation protection problems; initiating, recommending, or providing corrective actions; verifying implementation of corrective actions; stopping unsafe activities; and ensuring compliance with regulations. You are hereby delegated the authority necessary to meet those responsibilities, including prohibiting the use of byproduct material by employees who do not meet the necessary requirements and shutting down operations where justified to maintain radiation safety. You are required to notify management if staff does not cooperate and does not address radiation safety issues. In addition, you are free to raise issues with the Nuclear Regulatory Commission at any time. It is estimated that you will spend \_\_\_\_\_ hours per week conducting radiation protection activities.

Robert M. Bates ROBERT M. BATES P.E. 1.15.10  
 Signature of Management Representative OWNER Date

I accept the above responsibilities,  
Greg Dorge  
 Signature of Radiation Safety Officer 1/15/10  
 Date

cc: Affected department heads



# Central Missouri Professional Services

2500 East McCarty Street  
Jefferson City, MO 65101  
573-634-3455  
573-634-8898 (fax)

# Fax

**To:** Jose D. Macatangay **From:** Greg Dorge

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**Fax:** 630 -- 515 - 1078 **Pages:** 7 (including cover)

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**Phone:** 630 - 829 - 9841 **Date:** 1/15/2010

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**Re:** CMPS License – Control Number: 318676

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Urgent     For Review     Please Comment     Please Reply     Please Recycle

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**• Comments:**

Mr. Macatangay,

Please find 6 pages following that contain the resolutions to the clarifications requested in your fax of 1/14/2010.

If there is any additional information needed to complete our license application, please let me know.

Thank you for your prompt attention to this matter

Greg Dorge

573-634-3455