

So You're the New RSO!

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What is a Radiation Safety Officer (RSO) and what are his/her duties?

The RSO is the person responsible for radiological safety in conjunction with the use, handling, and storage of radioactive materials in a program licensed by the Nuclear Regulatory Commission (NRC) or Agreement State. It is the duty of the RSO to ensure that all licensed activities are carried out in compliance with the requirements of the license and the applicable rules and regulations.

The following excerpts of an article written by Dr. Carl J. Paperillo, former Deputy Regional Administrator of NRC Region III, offers insight into what the NRC or Agreement State expects of an RSO. (From the March 1993 issue of Nuclear Material Safety and Safeguards (NMSS) Licensee Newsletter)

What does it mean, if you agree to be named as the new Radiation Safety Officer (RSO) on an NRC or Agreement State license?

It means you have the knowledge and skill, the resources and time, the will, and the clout in your organization to ensure that activities involving radiation and radioactive materials are conducted safely, and all license requirements, both in the regulations and those specific to your license, are being met. Although you can delegate tasks, you have the ultimate responsibility.

How much knowledge do you have to have?

It depends. You don't need an advanced degree in nuclear physics if your responsibility is limited to sealed sources contained in devices like portable nuclear testing gauges. On the other hand, an RSO for a major broad-scope university, medical center, or manufacturer will probably need a fairly good scientific background, including substantial knowledge of radiation characteristics and methods of detection.

There is a skill set frequently overlooked in the selection of an RSO: **Can you manage?** If there is a large program under your license (i.e., a lot of users, diverse places of use, and/or branch offices) can you establish a management system that ensures you know everything that has to be done is being done?

For example, if your license involves a lot of gauges at diverse locations used by numerous employees, the knowledge of dose calculations, shielding or biological effects is not much help if you don't know if your users are properly trained, wearing the proper dosimetry, and transporting and storing gauges correctly.

Most of the civil penalty enforcement actions with which I have been involved result from a failure of a licensee to manage the radiation safety program correctly. The major management failure is the failure to know whether activities are being conducted in accordance with NRC and Agreement State requirements. I fail to understand why a business that knows how to audit its financial activities does not conduct an annual audit of its Radiation Safety Program and safety and operating procedures.

Do you have the time and resources to be an RSO?

This can be a problem, particularly if the RSO function is an ancillary assignment. It can generally work well for a small program in which the RSO is a user and has day-to-day contact with the other users. One geotechnical office with a few gauge operators is such an example. Others might include a small paving operations company with one office and several gauge operators, or a small testing services company. Problems usually arise when a small business grows, particularly when it adds branch offices, and the part-time RSO can no longer keep track of activities at other locations.

Do you want to be an RSO?

An RSO can be unpopular. You have to be a cop. Sometimes you have to say no. Don't let your name get on the license just because you have a Ph.D. and a desire to teach or do research but not to be a snoop! I know the feeling. I originally wanted to teach, too. I suppose, in a way, that is what I am doing now, by writing this article. As an RSO, you are a regulator just like me. A regulator has to have the will to regulate.

Do you have the clout in your organization?

Or, are you so low in your organization that no one listens to you? Does the senior gauge operator or job foreman write your performance appraisal or control your salary bonus? If so, you may have a problem. You must have the authority to stop an unsafe activity or an activity in violation of NRC or Agreement State requirements. Or you must at least have ready access to someone who can stop it. Organizations that prevent an RSO from doing his or her job are in violation of NRC or Agreement State regulations.