

## CSU PD Provides Radiation Response Training

### **Highlights of the interview with Officer Jamie Rayroux**

The Radiation Control Office has been working with CSU Police Department to provide education and hands on training to all officers that would be involved in a response to a radioactive materials incident. We interviewed Officer Jamie Rayroux who was tasked as the lead officer for radiation response training.

Officer Rayroux grew up in New Mexico and Arizona. He worked for a municipal police agency in the Phoenix area on a variety of assignments that included Field Training, Asset Forfeiture, Special Investigations, and SWAT. He started here at CSU PD in 2012 and has completed training in radiation safety and tactical alarm response, several different styles of defensive tactics instruction, and post-blast investigations. Officer Rayroux has been working to better prepare new officers response to critical incidents, and improve students' interactions with law enforcement. He feels CSU is truly a unique environment, and is glad to be a part of it.

**RCO:** Describe how you became interested in radiation response for CSU Police Department.

**Rayroux:** I was very interested in the learning more about the high activity radiation sources used for research on campus. I wanted to improve my confidence with radiation safety and procedures to ensure I could respond to any problem at CSU. After I had expressed such interest, my supervisors offered me the opportunity to attend Y-12 radiation response training in Oak Ridge Tennessee in June 2013.

**RCO:** Tell us about your Y-12 training.

**Rayroux:** Y-12 was a real eye-opener for myself and the other attendees. The RCO and CSUPD have a tremendous, mutually beneficial relationship with Oak Ridge, which has presented our employees with ongoing

opportunities to attend response training classes. While there in 2013, my Lieutenant and I recognized that "best practices" in national alarm response had changed, and that we had to change with them. Our second day in Oak Ridge began a new phase of ongoing collaborative efforts between the University, ACNS, RCO, and PD to ensure our security protocols and alarm response are consistent



with the best in the country.

**RCO:** Describe how your work experiences lead to your interest in radiation response training.

**Rayroux:** My experiences in Phoenix included responding to a large number of high-risk/low-frequency events, and I have a professional history of effective leadership and collaboration. When my Lieutenant and I discussed the need to revamp our alarm response, he offered me the chance to lead this effort. I believe as police work continues to evolve, we are perpetually tasked with ever-greater responsibilities within American society. Since 9/11, detecting and combating terrorism have become increasingly common, and radiation detection, investigation, and alarm response will soon be as common a part of police training as is Constitutional law. This

## Radiation Response Training Continued

project has given CSUPD and CSU RCO the opportunity to positively and proactively shape our professional environment in terms of radiation safety, training, tactics, and alarm response; and, not just in Colorado, but, potentially, within the Rocky Mountain region and throughout the United States.

**RCO:** Describe the current training for CSU officers on Radiation Safety and Radiation Responses.

**Rayroux:** I have worked with the RCO to schedule radiation safety and awareness training for new officers. We periodically conduct refresher exercises and drills to ensure officers retain the information that can be implemented into their response. Additionally, the Radiation Control Officers and I completed a FEMA instructor course this year that will allow us to begin training our campus officers to incorporate radiation detection and investigation into their everyday patrol duties, which will only further ensure the safety of the public in and around the University environment.

**RCO:** Why does CSU PD want to participate in the Radiation Training?

**Rayroux:** This training is imperative for the safety our of employees, students, staff, and the Fort Collins and northern Colorado communities. Should a worst-case scenario come to fruition, either through defect or malice, we are tasked with a reasonable and competent response that protects the public and serves the greater good. In stark contrast, my previous shop was near the Palo Verde Nuclear Power Plant; in the event of problems there, our only viable option was to seek shelter, which was frustrating for our officers and ineffective for our community.

**RCO:** What are the future plans for CSU PD in regards to response training?

**Rayroux:** We will continue to stress-test our current alarm response protocols, ensure they meet our safety needs, and change them

when and where needed. We are also working to assist Colorado Division of Homeland Security to develop and implement state-wide detection, investigation, and response plans and protocols, as well as offering regional and state training in and around our sources and facilities. As for the near future, there have been discussions about Oak Ridge sending their staff to Ft Collins to provide the best-available radiation safety and alarm response training for responders throughout the region.

**RCO:** Tell us how the “Rad Eyes” radiation detectors are used by CSU PD?

**Rayroux:** Every on-duty officer has a Rad Eye available to them as needed. Presently, we use them to help ensure our officers and employees are kept safe from radiation exposure during calls around the source materials. In the near future, we hope to integrate their use into daily patrol protocols to create a mobile security net around the campus environment.

**RCO:** Tell us about your interaction between CSU PD and the RCO?

**Rayroux:** RCO was incredibly accommodating especially when our current project kicked off in 2013. The Radiation Control Officers, Jim Abraham and Joe Tessari, freely provided expertise and professional opinions, as well as formal training to make the program a success. Radiation is Greek to the typical cop, and I admit my ignorance when this project started. The radiation training provided me with a much more comprehensive understanding, and helped me in navigating all the moving parts involved in this endeavor.



## Small, Portable and Cheap Radiation Detector is Being Designed for the Public

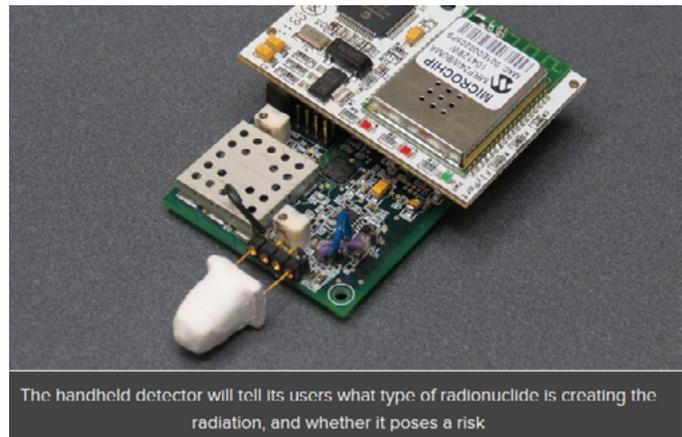
Article By Ben Coxworth for Gizmag July 14, 2014

Ever since the Fukushima nuclear reactor disaster, there has understandably been an upsurge in the sale of consumer radiation-detecting devices. Most of these gadgets are variations on the Geiger counter, in that they alert the user to the presence and level of radiation, but not the type of radiation – which is very important to know. Researchers at Oregon State University are hoping to address that situation by developing a handheld device that will additionally tell its users what type of radionuclide is creating the radiation, and whether it poses a risk.

The device is actually a miniaturized gamma ray spectrometer, and is claimed to combine digital electronics with a new type of “scintillation detector.” The latter typically combines an electronic light sensor with a scintillator, which is a material that luminesces when exposed to radiation.

The inclusion of the scintillation detector also allows for the device to be small, durable, lightweight, energy-efficient, and to be able to operate at room temperature.

Several models are planned, including one for use around the home. It could be used to check for and analyze radiation emanating from things like soil, granite countertops and concrete walls. The device will also be able to transmit data wirelessly, allowing users to set one of the



The handheld detector will tell its users what type of radionuclide is creating the radiation, and whether it poses a risk

devices in a given location and then monitor it via the internet.

“Radiation is a natural part of our lives that many people don’t understand, but in some cases there’s also a need to measure it accurately in case something could be a health concern,” said associate professor of nuclear engineering, Abi Farsoni. “This technology will accomplish both those goals.”

Once commercialized, it is hoped that the device will sell for under US\$150.

Additionally, because the smaller-than-a-golf-ball sized system is said to actually be more accurate and efficient than many professional-grade gamma ray spectrometers, the technology may also find its way into big-league applications such as scientific research, medicine, and emergency response.

## What’s new in Health Physics

### Conferences/Workshops

#### Health Physics Society 49th Midyear Meeting

Austin, TX

Jan. 31-Feb. 3, 2016

[more info >>>](#)

#### Society of Nuclear Medicine and Molecular Imaging Mid-Winter Meeting

Orlando, FL

Jan. 28-31, 2016

[more info >>>](#)

#### 2016 NCRP Annual Meeting

Bethesda, MD

April 11-12, 2016

[more info >>>](#)

## Radiation Do’s and Don’ts

### Do Check with RCO on Any Additional Sample Labeling Requirements



The RCO will be contacting labs about new requirements for labeling radioactive samples. A limited number of blank Radioactive Material labels are available from the RCO upon request.

