

## Developing a Working Relationship With Local Emergency Response Agencies

*B. Dodd*

*Oregon State University*

*K.G. Niles*

*Oregon Department of Energy*

*J.H. Stearns*

*Hermiston Fire Department*

### INTRODUCTION

Surveys show that accidents are one of the public's greatest concerns relating to the transportation of radioactive material through communities (MacGregor et al. 1994). Acknowledging that accidents will happen, proving that significant releases are unlikely, and demonstrating that the local emergency response agencies are capable of responding competently, go a long way to allaying these concerns (Binney et al. 1991, Blazek et al. 1991). It has been shown that good information alone does not do the job. We believe that when a respected member of the community, such as the fire chief, stands up and says that he is aware of what is being shipped, that his staff has been trained, and that he has the equipment to cope with radioactive material transportation accidents then the public fears are eased. If a person they trust says that he is confident that it is a manageable problem then they can relax. Getting to that point is not done quickly or easily. In many instances it means "going the extra mile," going far above and beyond the normal, or the required.

Radioactive waste travels through Oregon on its way to or from the Hanford Site in Washington State nearly every day. The majority of these shipments travel over 200 miles of freeway in northeast Oregon along Interstates 84 and 82. The route goes through four Oregon counties and also crosses the Confederated Tribes of the Umatilla Indian Reservation. Large portions of this route are subject to extreme and unpredictable winter weather. The area is sparsely populated. Due to its remoteness, response times to some areas are still quite lengthy.

Low-level waste makes up most of the shipments to Hanford. In addition to low-level waste, recent shipments along this route included spent fuel, highly radioactive  $^{137}\text{Cs}$  capsules, and radioactively contaminated nitric acid. Eventual cleanup at Hanford may result in large numbers of shipments of transuranic and high-level waste along this route. Hanford is also frequently discussed as a candidate site for disposal or storage of the following: spent fuel from commercial nuclear plants, spent fuel from Naval ships,

spent fuel from foreign research reactors, and surplus plutonium from dismantled nuclear weapons. Most of what travels to or from Hanford travels through Oregon (Dodd and Humphries 1989).

The onus of emergency response to an accident involving one of these shipments falls upon local fire departments and police agencies along the route. These agencies rely upon the State to provide training, exercises, and equipment, which the State provides. But given the public sensitivities about the transport of radioactive materials, we believe the State must go well beyond simply providing the tools and the training to allow for an effective and timely response to a transport accident involving one of these shipments. Local authorities must also be well informed about the variety of shipments that move through their jurisdictions and the hazard they present. They should be provided with opportunities to find out first-hand about the shipments that most concern or impact them. They should expect the State to act as their advocate, when possible, on issues of local importance. And they must also be given the opportunity to participate in the decisions that directly impact them.

In Oregon, lead responsibility for transport safety of radioactive materials falls with the Oregon Department of Energy (ODOE). The Oregon State Health Division's Radiation Protection Services is responsible for ensuring that adequate training and equipment is provided to local emergency responders. And, since 1981, Oregon State University's Radiation Center has worked with Energy and Health to develop and provide training to Oregon's emergency responders (Dodd and Humphries 1986). These agencies have worked together to overcome the distrust that many local agencies have of State government. We believe that for the most part, we have been successful and want to share examples of what has been done to achieve this success.

## **OPPORTUNITIES FOR LOCAL INVOLVEMENT**

Allowing and encouraging local involvement and influence at an early stage is essential.

### **Selection of Radiological Equipment**

Once funds had been realized for the purchase of radiation monitoring equipment for hazmat teams, a group of people was brought together to decide on what types, brands, and quantities of equipment should be bought. This group included several experienced local emergency response personnel as well as staff from the three agencies discussed earlier. Such a grouping resulted in not only a good technical evaluation of instruments and dosimeters, but also a practical assessment from those having to use them in the field. The State gained credibility by forming such a group and then following its recommendations.

## **Participation in Site Tours and Meetings**

The State often acts as an intermediary between local officials and the U.S. Department of Energy (USDOE). We provide information to local officials about planned and ongoing shipments, and relay local concerns to USDOE. While this arrangement works well, it can be enhanced by providing opportunities for local officials to meet with USDOE and to visit sites of interest or potential impact. This allows the local officials both the opportunity to directly relay their concerns to the USDOE, and to find out first-hand about various shipping campaigns. It also demonstrates that the State is sincere in its relationship with both parties and has nothing to fear from direct contact between the two.

Eventually, USDOE plans to truck thousands of shipments of transuranic waste from the Hanford Site to the Waste Isolation Pilot Plant (WIPP) in New Mexico. While shipments are not now expected from Hanford in the next 8 years, in recent years shipments appeared more imminent. Given the tremendous number of shipments that will travel down the I-84 corridor, we believed it was important that local officials found out as much as possible about these shipments.

In September 1993, the Western Governors' Association Technical Advisory Group on WIPP Transport met in Carlsbad, New Mexico. The meeting included a WIPP site tour. ODOE provided funding for three local officials to attend the meeting and tour -- two city fire chiefs and a county commissioner. This opportunity allowed them to hear what the States and USDOE were developing in terms of a transport safety plan, to view the site, and to relay their concerns to USDOE and other corridor States.

Oregon has also routinely sponsored tours of the Hanford Site every other year or so for local authorities. ODOE also invited and provided funding for two city fire chiefs to observe a major transportation exercise in Eastern Idaho in 1993 (TRANSAX 93).

## **Allocation of a Satellite Tracking System to La Grande Fire Department**

In preparation for transuranic waste shipments to WIPP, USDOE made a satellite tracking system available to Western States that were on the WIPP corridors. The system, called TRANSCOM, has since been distributed to other States for other USDOE shipments. In the Western States, USDOE provided software and funding for computer hardware to support two TRANSCOM locations. Oregon decided to make one of these TRANSCOM locations available to a *local response agency* -- the La Grande Fire Department. This demonstrates trust toward the local authorities by allowing them direct access to the system and the ability to make use of it however they wish. All other States kept both TRANSCOM systems under State control.

## **Participation in Winter Shipping and Safe Parking Decisions**

Bad weather and road conditions are major issues for local authorities along Interstate 84 since the region is subject to unpredictable and severe winter weather. In 1993,



USDOE announced its intention to ship 309 capsules of highly radioactive  $^{137}\text{Cs}$  from a commercial irradiation facility in Colorado to Hanford. Twenty shipments would be required to complete the program, and USDOE intended to make the shipments year round.

Given the local feelings about winter shipments of hazardous materials, Oregon joined with Wyoming to insist on some type of State control over shipments during the winter. USDOE eventually agreed to get approval from the States prior to dispatch of each shipment during winter months. USDOE also agreed the States could halt any shipment if unexpected weather conditions created hazardous driving conditions. Since bad weather conditions can be very localized, ODOE encouraged local authorities to provide information to the State if conditions warranted a shipment to be halted.

In November 1994, an unexpected blizzard resulted in Oregon requesting an en-route shipment to stop in La Grande, Oregon. Before the truck arrived in La Grande, ODOE consulted with the La Grande Fire Chief as to where he wanted the truck parked. While not pleased that the truck would be stopped in La Grande, the Fire Chief settled on a parking location and the truck was sent there. As weather conditions improved, ODOE consulted with La Grande about when the shipment could resume. Local authorities agreed that conditions were acceptable and the truck resumed its trip.

#### **Participation in a Citizen Advisory Board**

The Oregon Hanford Waste Board advises ODOE and Oregon's Governor and Legislature on issues related to Hanford. The Board is made up of citizens, State legislators, a representative of the Confederated Tribes of the Umatilla Indian Reservation, and State agency heads. One of the Board's three committees focuses on transport safety. This Board provides a forum for local officials and the public. Its citizen members include a County Commissioner and a Fire Chief from the I-84 corridor. A County Sheriff was a previous member.

### **TRAINING OPPORTUNITIES AND RESOURCES**

#### **State Radiological Training Classes**

Since 1981 free training for transport accidents involving radioactive material has been provided for local emergency response agencies. Initially this was a 1-day course taught at the local fire stations along the main highway routes (Dodd and Humphries 1986). Later, it evolved into a train-the-trainer program so that local regional radiological technical advisers were providing both training and second response. Currently, members of regional hazmat teams are involved in an annual 3-day course preparing them for radiological incidents. OSHD has been providing additional training for local hospitals, and others throughout the State.

Feedback from local responders has resulted in these training opportunities being responsive to the communities' continuously changing needs. Long-term involvement in a quality program has resulted in a mutual respect and trust relationship between those providing the training and those providing the emergency response.

### **Hanford Resources Made Available in Oregon**

The Hanford Site, while the cause for most radioactive material shipments through Oregon, is also a valuable resource for local emergency responders. When asked, USDOE and their contractors have usually been willing to provide training, shipment information, and in some cases, equipment and funding. Generally, Hanford officials have indicated that requests for this type of assistance should come from the State.

The Hanford Fire Department has a training trailer for the use of Self-Contained Breathing Apparatus. This trailer is state-of-the-art and provides for a realistic and valuable training experience for firemen. A few years ago, Hanford began to make this trailer available along its main transport routes, which included the Oregon portion of Interstate 84. Use of the trailer was provided at no cost. Fire departments along the route called it one of the best training experiences they have ever had.

In 1993, the Oregon Department of Energy requested that the trailer make a circuit through Western Oregon, along Interstate 5 and Highway 97. These two routes see some Hanford shipments. Hanford's response was a generous one, and the trailer spent an entire month in Oregon during the summer of 1994.

Hanford is the future site of a multi-million-dollar training facility called the Hazardous Material Management and Emergency Response (HAMMER) Training and Education Center. The Oregon Department of Energy worked with Oregon's Congressional delegation to help secure funding for this facility, and have worked with HAMMER's management to ensure that its facilities and appropriate curriculum are available to responders in Oregon.

### **Maximal Use of Federal Training**

The USDOE has provided a residential radiological emergency response course with excellent practical exercises for many years. Oregon State agencies have worked hard to put as many people through that course as possible, maintaining a list of responders who can go at short notice, so that we can fill last-minute cancellations from other States.

### **Hazard-Specific Information on Unique Shipments**

In 1994, USDOE proposed shipping radioactively contaminated nitric acid from Hanford through Oregon on its way to the East Coast and eventually to England. The shipments would carry a dual placard -- both "radioactive" and "corrosive." ODOE was concerned that if one of these shipments was involved in an accident, that

emergency responders might focus too much attention on the radiological hazard (which is minor in this case), and not enough on the nitric acid (which is by far the greater hazard).

A special training course for these shipments was unrealistic and not necessary. Instead, ODOE developed a one-page information sheet, which included a photograph of the shipping container, information about the shipments (UN numbers, shipment frequency), and hazard-specific response information.

The format proved very successful. Other Western States asked for copies of the information sheet, and USDOE copied the format in developing information sheets about other USDOE shipments. ODOE has since distributed one other such sheet -- for rail shipments of Naval spent fuel. Other information sheets will be developed for other "unique" shipments.

### **Development of Practical Field Procedures**

Since radiological incidents happen so infrequently, even the best training gets forgotten. For this reason, a simple folder of field procedures for radiological emergency response has been developed and is in use. The procedures had the direct input of the local response agencies to ensure that they were practical and that they conformed with the incident command system they employ. More importantly the procedures are not only kept with the radiological instruments, but they are actively used in the training courses and exercises so that they become very familiar.

### **CONCLUSIONS**

The examples provided in this paper are consistent with the following principles. Developing a working relationship with local emergency response agencies takes time and effort. It means taking every opportunity to involve them early as partners in the process, not telling them what is going to happen after it is too late. It means providing the training and equipment which they want, not that which the State thinks they need. It means championing their causes, not belittling their concerns. Mutual trust and respect is the goal. We believe that this goal is achievable.

### **REFERENCES**

Binney, S.E., Dodd, B., Ringle, J.C. *The Oregon HLW Transport Public Information and Involvement Program*, Trans. American Nuclear Society, 63, 357 (1991).

Blazek, M.L., Franco, J.E., Robison, R.W., Sanderson, W.J., Stewart-Smith, D.A., Binney, S.E., Dodd, B. *The Oregon Experiment: Public Information and Involvement*, International High Level Radioactive Waste Management Conference, Las Vegas, NV, 741-747 (1991).

Dodd, B., Humphries, L.L. *Training Local Emergency Response Personnel to Handle Transportation Accidents Involving Radioactive Material*, Health Physics, 50, 3, 404-406 (1986).

Dodd, B., Humphries, L.L. *The Risks of Radioactive Material Transportation Accidents in the State of Oregon*, Health Physics, 57 1, 131-139 (1989).

MacGregor, D., Slovic, P., Mason, R.G., Detweiler, J., Binney, S.E., Dodd, B. *Perceived Risks of Radioactive Waste Transport through Oregon: Results of a Statewide Survey*, Risk Analysis: An International Journal, 14, 1 5-14 (1994).