Public Health Preparedness

Examination of Legal Language Authorizing Responses to Incidents Involving Contamination with Radioactive Material

Public Health Law Program
Public Health Preparedness: Examination of Legal Language Authorizing Responses to Incidents Involving Contamination with Radioactive Material

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Acknowledgments

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Executive Summary

Background

Over the past several decades, state and local health departments throughout the United States have developed plans and procedures to better respond to and recover from releases of radioactive material. The legal patchwork of statutes and regulations that support public health response and recovery strategies and procedures in such incidents has, however, been largely unexamined.

In 2012, the Centers for Disease Control and Prevention (CDC) and the National Association of County and City Health Officials (NACCHO) developed the radiation legal preparedness (RLP) project to examine state and local legal authorities related
to the response to and recovery from incidents in which members of the public become contaminated or potentially contaminated with radioactive material.

**Legal Research Process and Findings**

The RLP project focused on identifying answers to two overarching legal questions:

1. Do states and select jurisdictions possess the authority to decontaminate persons contaminated with radioactive material?
2. Do states and select jurisdictions have the authority to restrict the movement of persons contaminated with radioactive material?

To answer these questions, CDC conducted a legal assessment of all fifty states, New York City, Los Angeles, and Washington, D.C.

Analysis of the survey results yielded three key findings:

1. The language of radiation-related legal authorities varied substantially. The RLP categorized legal authority as follows:
   a. Express radiological language
      i. These laws contain language that grants jurisdictions the authority to decontaminate or restrict the movement of persons contaminated or potentially contaminated with radioactive material. Radioactive material is expressly mentioned in these laws, although language about other potentially hazardous materials may also be included.
   b. Broad language
      i. These laws include language that grants jurisdictions broad authority to decontaminate or restrict the movement of contaminated or potentially contaminated persons, regardless of the type of contamination (radioactive, chemical, or biological).
   c. Narrow language
i. These laws contain language that grants jurisdictions the authority to decontaminate or restrict the movement of persons contaminated or potentially contaminated with radioactive material on the narrow basis of a particular condition or type of incident, such as a terrorist attack involving radioactive material.

d. Language limited to biologics
   i. These laws contain language that grants jurisdictions the authority to disinfect or restrict the movement of persons infected with biologics, specifically. These laws apply only to communicable or infectious diseases.

2. Many states and local jurisdictions rely upon isolation and quarantine laws to provide the authority necessary to decontaminate and restrict the movement of individuals. Because these provisions are historically embedded with infectious and contagious disease control language, they may not be well suited to incidents involving contamination with radioactive material.

A jurisdiction might have expanded authority to decontaminate or restrict the movement of individuals and/or change the type of authority granted, depending on whether or not a state or local jurisdiction declares an emergency or public health emergency.
Radiation Legal Preparedness (RLP) Project

Introduction

The RLP project had two purposes: 1) to identify and categorize the current landscape of laws that may be available to decontaminate and restrict the movement of individuals contaminated or potentially contaminated with radioactive materials; and 2) to help foster and guide conversations among stakeholders on legal issues to strengthen plans to prepare for and respond to incidents involving the release of radioactive materials.

Background

Heeding guidance promulgated by the Department of Homeland Security (DHS) National Planning Scenarios and lessons learned from national and international radiological and nuclear incidents, jurisdictions nationwide are strengthening emergency preparedness plans. While plans are important, the necessary laws that establish the foundation for many radiological public health response activities have not been comprehensively assessed. Further, the laws that would underpin such an effort vary considerably across jurisdictions. Recently, CDC identified the need to examine current legal authorities within the United States that provide jurisdictions with the legal authority to decontaminate and restrict the movement of individuals who pose a potential public health threat as a result of being contaminated or potentially contaminated with radioactive material.

To better characterize the laws that pertain to the decontamination and restriction of movement of individuals contaminated or potentially contaminated with radioactive material, CDC and NACCHO partnered in 2012 to examine state and select local legal authorities. To account for the multiple disciplines that would be involved in the response to a radiation incident (emergency management staff, first responders, public health officials, radiation subject matter experts, law enforcement personnel, and other professionals), the RLP project convened working groups populated with representatives from each of these specialty areas. Work group members were
provided hypothetical scenarios and tasked with identifying gaps and barriers when applying different legal authorities.

**Methods**

Using Westlaw Next,\(^1\) CDC identified and categorized current legal language that provides jurisdictions with the authority to decontaminate or restrict the movement of individuals contaminated or potentially contaminated with radioactive material. Legal language from all fifty states, New York City, Los Angeles, and Washington, D.C., was considered.\(^2\) Authority to decontaminate and/or restrict movement of individuals in both non-emergency settings and during declared emergencies or public health emergencies was included in the review. The intent of this research was to create a comprehensive guidance document. The RLP project was informed by two categories of law: statutes and regulations.\(^3\)

**The assessment consisted of two questions:**

1. Does the state or local jurisdiction have laws providing the authority to restrict the movement of individuals who have been contaminated or potentially contaminated with radioactive materials?

2. Does the state or local jurisdiction have laws providing the authority to decontaminate individuals who have been contaminated or potentially contaminated with radioactive materials?

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\(^1\) Westlaw Next, Thomson Reuters, 610 Opperman Drive Eagan, MN 55123
\(^2\) The federal government has limited power to act based on what is expressly granted in the Constitution, with the 10th Amendment giving all remaining powers to the states. Because public health is not explicitly mentioned in the Constitution, states have the plenary power to protect the health, safety, morals, and general welfare of their citizens, known as the “police powers.”
\(^3\) The RLP project is limited to public health laws and does not apply to other authorities governing emergency response conducted by relevant public safety or law enforcement personnel, such as evacuation, curfews, and investigative activities (including crime scene controls).
Research Findings

Legal landscape
The language within the laws granting jurisdictions the authority to decontaminate or restrict the movement of individuals contaminated or potentially contaminated with radioactive material is represented by the four legal landscape maps below. A description of the categories displayed on the map legend is provided. A complete list of the jurisdictions and their category placement appears in Appendix B.

Figure 1: Legal Language Authorizing Responses to Radiological Incidents, by State and Select Cities
<table>
<thead>
<tr>
<th>State/Local Category</th>
<th>Description of Category</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Express Language</td>
<td>Language grants jurisdictions the authority to decontaminate or restrict the movement of persons contaminated or potentially contaminated with radioactive material. The provisions include terms such as “radiation” or “radiological agents.” Note that contamination with other potentially hazardous (non-radioactive) materials may be mentioned.</td>
<td>“The local health officer may issue, and first responders may execute, an order authorizing first responders to immediately isolate exposed individuals that may have been exposed to biological, chemical, toxic, or radiological agents that may spread to others.”</td>
</tr>
<tr>
<td>(Beige)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broad Language</td>
<td>Language broadly grants jurisdictions the authority to decontaminate or restrict the movement of any contaminated or potentially contaminated person, regardless of the type of contamination (radioactive, chemical, or biological). The provisions include language such as “threat to public health” or “hazards to health.”</td>
<td>“The department may quarantine or isolate individuals who have been exposed to hazardous materials that can cause serious illness or injury by transmission of the hazardous material to others.”</td>
</tr>
<tr>
<td>(Purple)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Narrow Language (Yellow)                                                                 | Language grants jurisdictions the authority to decontaminate or restrict the movement of persons contaminated or potentially contaminated with radioactive material on the narrow basis of a particular condition or type of radiological release. The provisions may include language referring only to terrorist attacks or incidents involving nuclear agents.  

Example  
“If the State Health Director reasonably suspects that a public health threat may exist and that the threat may have been caused by a terrorist incident using nuclear, biological, or chemical agents, the State Health Director is authorized to order any of the following:  
Limit the freedom of movement or action of a person or animal that is contaminated with, or reasonably suspected of being contaminated with, a biological, chemical or nuclear agent that may be conveyed to other persons or animals. . .”iii |
| Language Limited to Biologics (Blue)                                                      | Language grants jurisdictions the authority to disinfect or restrict the movement of persons infected with biologics, specifically. These laws apply to communicable or infectious diseases.  

Example  
“A health officer or the Department, upon receiving a report of a communicable disease, shall, by written order, establish such isolation or quarantine measures as medically and epidemiologically necessary to prevent or control the spread of the disease.”iv |
General Findings

The assessment identified three general findings:

1. The language of radiation-related authorities varied substantially across jurisdictions.
   - The legal language categories, as listed from most to least applicable to radiological material, include express language addressing contamination with radioactive material, broad language, narrow language, and language limited to infection with biological agents.

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4Jurisdictions with language in more than one category are represented in each category and attribute to the total percentage in each legal language category.
• For example, in jurisdictions needing to decontaminate individuals contaminated or potentially contaminated with radioactive material, and in the absence of an emergency declaration, 15% have express language, 49% use broad provisions, and 4% have a narrow application of radiation. Currently, 32% of jurisdictions surveyed have language limiting authority to biologics only. Language differences may impact the legal and tactical approaches adjacent jurisdictions use when responding to incidents involving contamination with radioactive material.

2. Many jurisdictions have language rooted in traditional isolation and quarantine laws, which may limit the authority to decontaminate and restrict the movement of individuals to communicable diseases.\(^5\) Quarantine and isolation are defined as follows:

**Quarantine:** the compulsory separation, including restriction of movement, of populations or groups of healthy people who have been potentially exposed to a contagious disease, or to efforts to segregate these persons within specified geographic areas.\(^v\)

**Isolation:** the separation and confinement of individuals known or suspected (via signs, symptoms, or laboratory criteria) to be infected with a contagious disease to prevent them from transmitting disease to others.\(^vi\)

- These laws are intended to fight the spread of infectious and contagious diseases and may not be applicable to contamination with radioactive material.
- Passing radioactive material from one individual to another (so called “secondary contamination”) is not exactly analogous to transmitting a communicable disease. If a particular jurisdiction relies solely on communicable disease language to curtail the potential spread of

\(^5\) Percentage of jurisdictions limited to biologics: Non-emergency restriction of movement 32%; Emergency restriction of movement 9%; Non-emergency decontamination 32%; Emergency decontamination 12%.
radioactive material from one individual to another, this implementation may not survive judicial review.

3. In some jurisdictions, an emergency declaration or public health emergency declaration related to incidents involving radioactive material might trigger other laws that expand or clarify the authority to involuntarily decontaminate or restrict the movement of individuals.
   • During a declared emergency or public health emergency related to incidents involving releases of radioactive material:
     o Restriction of movement of individuals: 42% of jurisdictions increase authority and move to a more expansive language category.\(^6\)
     o Decontamination of individuals: 32% of jurisdictions increase authority and move to a more expansive language category.\(^7\)
   • In some states, laws provide designated officials with the authority to restrict the movement of individuals during an emergency.
     o Currently, fifteen states expand the authority of the governor during a declared emergency.\(^vii\) Such authority might contain language to control ingress to and egress from a disaster area and movement and occupancy of persons within the area.

Application

The RLP project findings suggest that jurisdictions may wish to review laws relating to the decontamination and restriction of movement of individuals following incidents involving releases of radioactive material. The following questions can be used to examine the legal authorities that may be available.

\(^6\) Appendix B.
\(^7\) Id.
**Legal Guided Questions**

<table>
<thead>
<tr>
<th><strong>Who has the authority to decontaminate or restrict the movement of individuals during incidents involving contamination with radioactive material?</strong></th>
<th>The laws that grant authority to decontaminate or restrict the movement of individuals might determine which officials have the power to act. Depending on the facts of the incident and whether or not an emergency or a public health emergency has been declared, different provisions of the law could come into play, potentially changing which officials are granted the power to act.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Where is the law located in the code?</strong></td>
<td>Provisions granting the authority to decontaminate or restrict the movement of individuals contaminated or potentially contaminated with radioactive material might be found in a jurisdiction’s public health laws, quarantine or isolation laws, emergency laws, or a combination thereof. The location of the granting provisions within the code might affect the scope of the laws and their applicability to a particular radiological incident.</td>
</tr>
<tr>
<td><strong>Does the law expressly mention radiation?</strong></td>
<td>Jurisdictions may want to assess provisions for the inclusion of such terms as “radiation,” “radiological,” “radioactive,” and “nuclear” (see Glossary for definitions of these terms) to determine whether the provisions grant express authority. Assessments should consider whether laws have language limited to specific nuclear agents or terrorist activities. Such limiting language might exclude other potential public health threats posed by exposure to or contamination with radioactive material. The exact terminology could affect the scope</td>
</tr>
</tbody>
</table>

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Does the law limit authority to biologics?

Laws that grant authority to disinfect or restrict the movement of people might have language that is limited to biologics, such as “communicable diseases,” “infectious diseases or agents,” or “contagious diseases.” Legal provisions limited to biological agents might not apply to incidents involving contamination with radioactive materials.

Would a declared emergency trigger expanded or specific authorities to decontaminate or restrict the movement of individuals?

When reviewing legal authority, jurisdictions are encouraged to assess their non-emergency laws as well as specific emergency or public health emergency laws. Laws that authorize emergency declarations might expand the authority of government officials to act during an incident. These laws vary from state to state and can affect the authority to decontaminate or restrict the movement of individuals contaminated or potentially contaminated with radioactive material.

Do the laws require obtaining an order from a health commissioner, public safety official, or judge?

Some laws include legal procedures that agencies are required to follow when responding to incidents. For example, some laws require state and local health departments or other designated officials to obtain an order from a judge to decontaminate or restrict the movement of individuals. Such procedural requirements affect how the authority to decontaminate or restrict the movement of individuals is implemented.
**Legal Discussion Questions**

The potential for radioactive materials to be released into the environment—whether intentional or inadvertent—emphasizes the need for state, tribal, local, and territorial health agencies to develop cross-sector emergency preparedness policies and procedures. By determining in advance the authority that exists to support response and recovery efforts, public health, public safety, and other response communities can better customize the plans to their jurisdiction. RLP work group members provided the following discussion points in order to guide a conversation between stakeholders.

<table>
<thead>
<tr>
<th>Preparedness Application Questions</th>
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<tr>
<td><strong>What types of relationships among public health and legal officials currently exist in your areas?</strong></td>
</tr>
<tr>
<td>Having a viable response plan prior to a release of radioactive material into the environment is critical. Health departments might want to consult with attorneys and subject matter experts to create a preparedness plan that effectively uses their legal authority. Further, access to legal counsel in some jurisdictions might be limited, emphasizing the need to consult with legal counsel before an incident.</td>
</tr>
<tr>
<td><strong>Are attorneys and judges adequately prepared to assist during a response to an incident involving the release of radioactive material?</strong></td>
</tr>
<tr>
<td>Much like the public at large, many attorneys and judges have an incomplete understanding of the implications of incidents involving contamination with radioactive material. Constraining persons against their will or providing involuntary decontamination could violate their civil liberties. In many jurisdictions, the burden of presenting compelling evidence rests with the public health entity. The legal language may require that the local and state public health entity provide evidence to demonstrate a level of radioactive contamination sufficiently high that it represents a</td>
</tr>
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</table>
public health threat. During an incident involving contamination with radioactive material, the designated official must understand enough of the science and the law to properly convey the severity of the situation to a judge. In turn, the judge must also be appropriately knowledgeable about the science underpinning the legal argument.

<table>
<thead>
<tr>
<th>Is the authority afforded to your neighboring jurisdiction similar to that of your own jurisdiction?</th>
</tr>
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<tbody>
<tr>
<td>A release of radioactive material might prompt contaminated persons to leave the scene rapidly, well before the area is officially contained with boundaries. Due to the variety of laws between jurisdictions and the authorities granted to them, the response stakeholders must understand the laws of neighboring jurisdictions. For example, if an incident were to occur in a state that expressly allowed for the involuntary decontamination of a person contaminated or potentially contaminated with radioactive material, and individuals affected by the incident were to cross jurisdictional lines into another state that limited this authority to communicable diseases only, then health departments or officials could be liable if they attempted to decontaminate those individuals after they crossed the border.</td>
</tr>
</tbody>
</table>

**Summary**

In preparing for potential incidents involving contamination with radioactive material, jurisdictions may decide to analyze their laws regarding the decontamination and restriction of movement of affected individuals. The RLP project found three general themes of the current legal landscape:
• The language of the laws varies substantially throughout the United States. To best prepare for an incident involving contamination with radioactive material, jurisdictions may want to address their laws to determine whether the language authorizing their ability to decontaminate or restrict the movement of individuals is express, broad, narrowly defined, or limited to biologics.
• The language in some laws is limited to biologics, in which case using communicable disease or traditional quarantine and isolation language may not be applicable to situations involving contamination with radioactive material.
• Jurisdictions might want to discuss and prepare for the impact that a declaration of emergency or public health emergency has on their authority. Such declarations might expand the authority granted to designated officials.

In conclusion, a response to an incident involving contamination with radioactive material is a multidisciplinary effort involving law enforcement personnel, local health department representatives, radiation subject matter experts, legal representatives, and other stakeholders. State and local jurisdictions might want to have a comprehensive conversation about their legal authorities with stakeholders before a radiation incident occurs to help ensure a successful response.
Contributors and Reviewers

The Radiation Legal Preparedness (RLP) project was researched and prepared for the CDC’s Radiation Studies Branch and Public Health Law Program by Jennifer Buzzell, Gabriella Klaes, Matthew Penn, and for NACCHO by Andrew Roszak.

The RLP project is a testament to this spirit of collaboration. Project leaders coordinated two webinars and met with representatives from a variety of disciplines including radiation subject matter experts, law enforcement, public health officials, and attorneys at a roundtable workshop.

The response to a radiological incident is a multidisciplinary effort and all parties involved will have a unique role to play. CDC and NACCHO gratefully acknowledge the following individuals for their time, expertise, and insight during the development and review of this document.

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APPENDIX A: Glosssary

Broad Language
Language that grants a jurisdiction the authority to decontaminate or restrict the movement of persons but that is neither expressly linked to radiological agents nor limited to biologics. The provisions include language such as “threat to public health” or “hazards to health.”

Centers for Disease Control and Prevention (CDC)
CDC works to protect America from health, safety and security threats, both foreign and in the US. Whether diseases start at home or abroad, are chronic or acute, curable or preventable, human error or deliberate attack, CDC fights disease and supports communities and citizens to do the same.

As the nation’s health protection agency, CDC saves lives and protects people from health threats. To accomplish their mission, CDC conducts critical science and provides health information that protects our nation against expensive and dangerous health threats, and responds when these arise.

Communicable Disease
A disease that is transmitted through direct contact with an infected individual or indirectly through a vector. Also referred to as a contagious disease. See Vector.

Consent
Agreement, approval, or permission as to some act or purpose, especially given voluntarily by a competent person; legally effective consent. See Implied Consent.

Constitution (10th Amendment)
“The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.”
**Discretionary Authority**
A public official’s power or right to act in certain circumstances according to personal judgment and conscience.

**Discretionary**
An act or duty involving an exercise of judgment and choice, not an implementation of a hard-and-fast rule.

**Decontamination (Radiation)**
The reduction or removal of radioactive contamination from a structure, object, or person.

**Emergency Declaration**
Declaration by a government jurisdiction that suspends select functions of the executive, legislative and judicial powers; alerts citizens to change their normal behaviors; and/or orders government agencies to implement emergency preparedness plans.

**Express Language**
Language that grants a jurisdiction the authority to decontaminate or restrict the movement of persons with radiological contamination. The provisions include terms such as “radiation” or “radiological agents.”

**Judicial Order**
An official command by a judge that defines the legal relationships between the parties to a hearing, a trial, an appeal, or other court proceedings. Such ruling requires or authorizes the carrying out of certain steps by one or more parties to a case. A court order must be signed by a judge; some jurisdictions may require it to be notarized.
Implied Consent
Consent inferred from one’s conduct rather than from one’s direct expression. See Consent.

Infectious Disease
A clinically evident illness resulting from the infection, presence, and growth of a pathogenic biological agent in an individual host organism.

Ionizing Radiation
Any radiation capable of displacing electrons from atoms, thereby producing ions. High doses of ionizing radiation can cause severe tissue damage, and low doses can increase risks for cancer and for birth defects for an embryo or fetus.

Isolation
The physical separation to allow for possible medical care of persons who are infected or are reasonably believed to be infected with a threatening communicable disease or potential threatening communicable disease from non-isolated persons, and to protect against transmission of the threatening communicable disease to non-isolated persons.

Language Limited to Biologics
Language that grants a jurisdiction the authority to disinfect or restrict the movement of persons that is limited to biologics through the use of terms pertaining only to communicable and infectious diseases.

Legal Authority
A source, such as a statute, case, or treatise, cited in support of a legal argument. Legal authority is a right coupled with the power to act or order others to act determined by government bodies.
National Association of County and City Health Officials (NACCHO)
A nonprofit organization representing the 2,800 local health departments in the United States.

Narrow Language
Language that grants a jurisdiction the authority to decontaminate or restrict the movement of persons based on a particular condition or type of radiological release. The provisions include language referring only to terrorist attacks or incidents involving nuclear agents.

Non-Ionizing Radiation
Radiation that has lower energy levels and longer wavelengths than ionizing radiation. Non-ionizing radiation is not strong enough to affect the structure of atoms it contacts, but it is strong enough to heat tissue and can cause harmful biological effects. Examples include radio waves, microwaves, visible light, and infrared from a heat lamp.

Nuclear
Relating to or using energy released in nuclear fission or fusion.

Quarantine
The isolation of a person or animal exposed to but not yet afflicted with a communicable disease, or the prevention of such a person or animal from coming into a particular area, to prevent the spread of disease.

Radiation
Energy moving in the form of particles or electromagnetic waves. Familiar radiations are heat, light, radio waves, and microwaves. See Ionizing Radiation and Non-Ionizing Radiation.
Regulation
The act or process of controlling by rule or restriction or by law. A rule or order having legal force issued by an administrative agency.

Restrict the Movement of Individual(s)
The involuntary detention of an individual or the control of ingress and/or egress.

Statute
A law passed by a legislative body.

Vector
An organism (e.g., an insect) that transmits a pathogen.

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i CAL. HEALTH & SAFETY CODE § 101080.2(a) (2010).
ii ALASKA STAT. § 18.15.385(m) (2005).
iv N.J. ADMIN. CODE 8:57-1.11(a) (2009).
v ALASKA STAT. § 18.15.385(m) (2005).
viii ALA. CODE 1975 § 22-12-4 (1981); ALA. CODE 1975 § 22-12-12 (1940).
ix ALA. CODE 1975 § 12-11A-7 (1987); ALA. ADMIN. CODE r. Ch. 420-4-1.05, App. I (2011); ALA. ADMIN. CODE r. Ch. 420-4-1, App. I (2012).
xi ALA. CODE 1975 § 12-11A-7 (1987); ALA. ADMIN. CODE r. Ch. 420-4-1.05, App. I (2011); ALA. ADMIN. CODE r. Ch. 420-4-1, App. I (2012).

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