



# The Tri-Cities Region and Radiological Threat Overview

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# The Tri-Cities Area

- Climate and Geography
  - Semi-arid climate
    - Avg Annual Precipitation 8.3 inches
    - Avg Annual Snowfall 6.0 inches
  - Shrub-steppe environment
    - Perennial grasses
    - Shrubs
  - Temperatures
    - January Avg High 41
    - January Avg Low 28
    - July Avg High 88
    - July Avg Low 59
    - Days of Sunshine 300



# The Tri-Cities Area

- Tri-Cities MSA (Benton and Franklin Counties)
  - Population: 283,830
  - 4<sup>th</sup> Largest MSA in WA
  - Population growth of 1-2%/year for over 10 years
  - Fastest growing job market in WA
  - Low cost of Living Index
  - 10 Best Cities for STEM Jobs
  - Top 20 Mid-Size Cities for Year-Over-Year Growth
  - #5 Best Job Growth since the Recession
- Regional hub
  - Healthcare
  - Shopping
  - Business
  - Recreation



# Radiological Hazards Overview

- What is radiation?
  - Exists all around us, in natural and man-made form.
  - Two types: Ionizing and non-ionizing
    - Non-ionizing cannot separate electrons from atoms or molecules
    - Ionizing can cause electrons to separate from atom or molecule
  - Most atoms are stable; nature likes balance
  - Atoms are building blocks. Solid, liquid, or gas
  - Unstable atoms try to become more stable – radioactive decay thereby releasing radiation (energy)



# Radiological Hazards Overview

- Sources
  - Hanford Site
  - Columbia Generating Station
  - Areva ANP
  - Transportation
  - Human-Caused (IND or RDD)
  - Other (orphan or broken sources)



# Radiological Hazard Challenges

- Response to Radiological Hazards
  - 85% of response activities are the same regardless of the hazard
    - Notify and Mobilize, Gather Info, Make a plan, Assign responders to missions, provide logistical support, alert/notify the public, etc.
  - Radiological incidents have some unique needs
    - Requires technical assistance from Subject Matter Experts
      - Determining what it is and where it is
      - Explaining what the health impacts are, or may be, to the workers and the public
    - Special PPE needs
    - Lots of Scientific language - need “translators”
    - Public information activities on steroids



# Radiological Hazard Challenges

- Radiation is scary!
  - Can't see, feel, taste, smell, or hear it (invisible dust)
  - People and responders may be afraid.
  - Hollywood and some of the media haven't helped the situation.
- Public Information is critical
  - Public is scared of radiation more so than other hazards
  - People need to be told what's going on and whether they need to take any protective actions or not.
- Major economic impacts
  - Agricultural industry
  - State-wide impacts - not just the Tri-Cities
  - Livestock issues



# Radiological Hazard Challenges

- Response agencies have to respond differently
  - EMS/Medical
    - Contaminated, injured patients
    - Medical condition trumps radiological
  - Public Health
    - Assess community health impacts
    - Monitoring/decontamination operations
    - Population monitoring – short and long term
  - Law Enforcement
    - Possible large areas evacuated & need access control
  - Utilities
    - Communications systems stressed or fail
    - Networks overburdened and slow down or crash
    - Access to critical infrastructure inside impacted areas



# Radiological Hazards Overview

- Radiological Incidents may be very long term events
  - Months to Years
  - Extremely costly
  - No one can do it by themselves
- Community Impacts
  - Large influx of assistance with additional logistical needs
    - Mutual Aid
    - Feds
    - Media
  - Short/Long term housing
  - Black hole inside restricted area(s)
    - Long term relocation
    - A new “normal”



# Radiological Hazards Overview

- Plan for radiological events
  - Low probability but high consequence
- You aren't the only one – team up with others
- The planning process is as important or more important than the plan.



# Questions?

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