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2.5M Pounds Of Radioactive Waste Illegally Dumped In Oregon Landfill

by **Monica Samayoa** (https://www.opb.org/contributor/monica-samayoa/) [Follow \(\)](#) OPB Feb. 14, 2020 2 p.m. | Updated: Feb. 14

2020 6:11 p.m. | Portland, Ore.

The Oregon Department of Energy has issued a notice of violation to a hazardous waste facility for accepting more than 2 million pounds of radioactive materials east of the Columbia River Gorge.

Chemical Waste Management, a subsidiary of Waste Management Inc., was illegally dumping radioactive materials it received from a North Dakota company, Goodnight Midstream, at its waste landfill near Arlington, Oregon.

Chemical Waste Management is the only hazardous waste landfill in Oregon and according to the ODOE, Oregon law prohibits the disposal of radioactive materials in the state.

“We received an inquiry from a citizen from North Dakota in September who was under the impression fracking waste from North Dakota was being disposed of in an Oregon landfill,” ODOE’s assistant director for nuclear safety Ken Niles said.

The agency found that Chemical Waste Management dumped nearly 1,284 tons of radioactive waste it received from Goodnight Midstream over a period of three years, totaling over 2.5 million pounds.

Goodnight Midstream provides brine water supply and recycling services to the oil and gas industry for fracking operations. The liquid that Chemical Waste Management had received had been in contact with rocks underground that contained radium, said ODOE’s nuclear waste remediation specialist Jeff Burrigh.



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Garbage, hauled in by train from long distances, is unloaded onto trucks for transfer to the landfill in the barren, rolling hills near Arlington, Ore., Aug. 3, 2004.

Don Ryan/AP

socks,” Burrright said.

Oregon has a threshold of five picocuries per gram of radium 226. Picocuries are a measurement of the radioactivity in a liter of air.

“The waste that was received at Chemical Waste Management Arlington had a range of concentrations over the time running from just a few picocuries per gram up to the maximum in about one and half tons total was around 1,700 picocuries per gram,” Burrright said.

RELATED COVERAGE

Initially, Chemical Waste Management had no records of a relationship with Goodnight Midstream. But it was later confirmed that the North Dakota company contracted a third party, Oilfield Waste Logistics, to dispose of its solid waste. Shipping manifests showed that OWL was sending Goodnight Midstream’s waste to Arlington.

“Then they filtered that water so that they can reuse it, that radium was captured in what are known as filter socks, which are very long teabags if you will, and it accumulated there and what we’ve gathered is about 80% of the total waste consisted of these filter



“OWL basically misrepresented the fact that this waste could come into Oregon. ... In the manifest that they provided to Chemical Waste Management Arlington, it basically said that this waste does fit within Oregon’s regulations,” Niles said. “The other part of the problem is that Chemical Waste Management did not do their due diligence to ensure what they were being told by OWL was in fact accurate.”

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ODOE’s notice of violation has directed Chemical Waste Management to prepare a risk assessment to develop a corrective action plan to prevent recurrence. This will also help determine the best and

safest course of action for the waste that is already buried in the landfill near the Columbia River.

ODOE hasn’t issued any fines associated with the illegal dumping of radioactive waste. Officials said it doesn’t meet the criteria that would qualify for a fine. ODOE expects the risk assessment action plan to be submitted by the end of April.

“This is the first time that we’ve had an incident like this that we have become aware that radioactive material has been brought into the state and illegally disposed in violation of our rules,” Niles said.

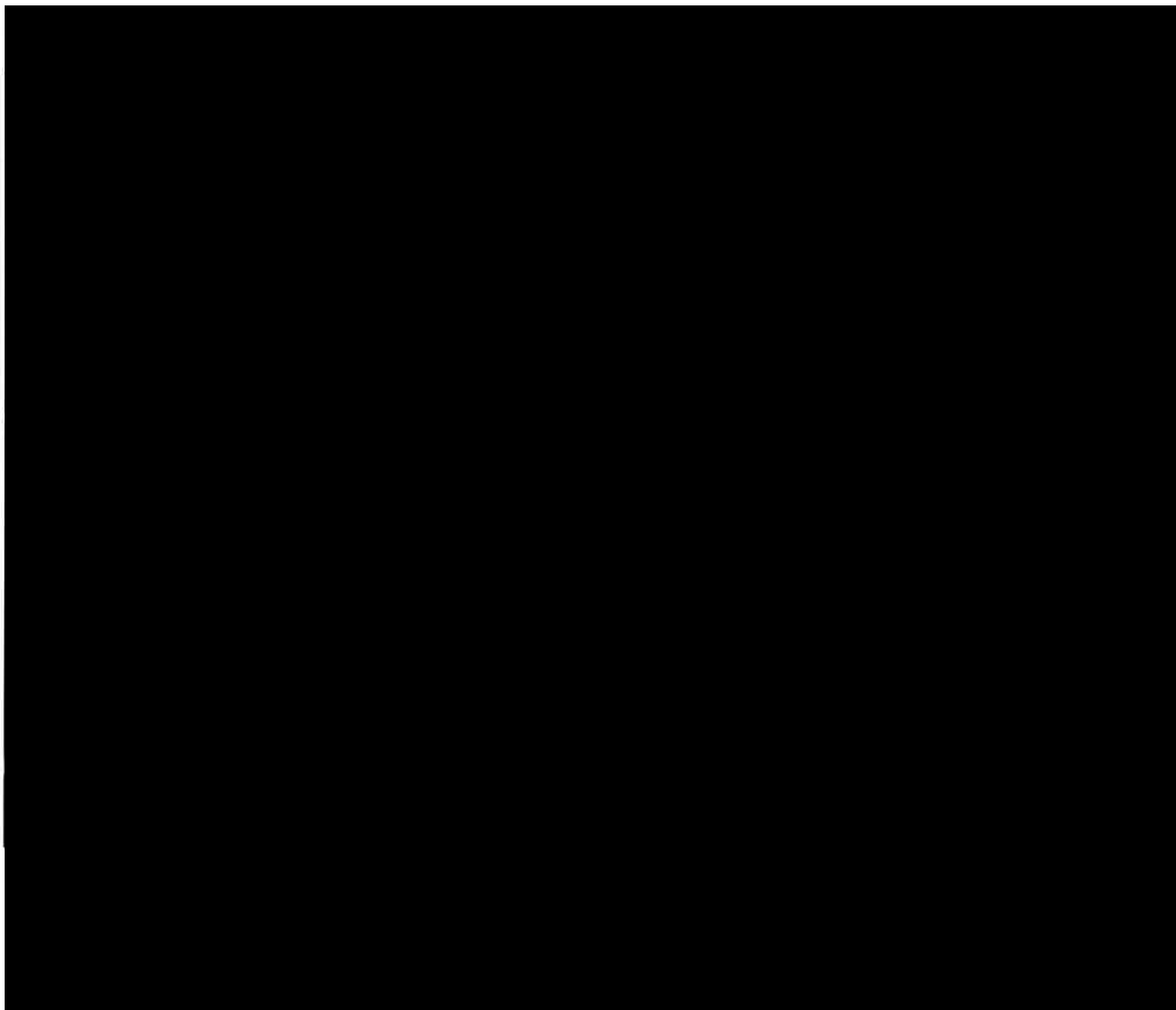
Dan Serres from the Columbia Riverkeeper said the news of the illegal dumping of fracking waste is a serious violation of the public trust and it’s a huge risk for Oregonians.

“It’s seems unacceptable that Oregon can be used as a radioactive fracking waste dump for three years,” Serres said.

“Oregon is trying to move in the direction of clean energy and what this tells us is, it is urgently important to stop using fracked gas and fracked oil as quickly as possible, because of these health risks that come with fracking to workers and communities where this toxic material is being dumped,” Serres said.

Waste Management Inc. officials said in a written statement that they are cooperating with state regulators and are committed to improving the procedures they use to ensure they’re complying with Oregon law. They said they now send waste samples to an independent

technical experts for analysis prior to accepting it.





Home → Health Topics → Radiation Exposure

URL of this page: <https://medlineplus.gov/radiationexposure.html>

Radiation Exposure

What is radiation?

Radiation is energy. It travels in the form of energy waves or high-speed particles. Radiation can occur naturally or be man-made. There are two types:

- **Non-ionizing radiation**, which includes radio waves, cell phones, microwaves, infrared radiation and visible light
- **Ionizing radiation**, which includes ultraviolet radiation, radon [<https://medlineplus.gov/radon.html>] , x-rays [<https://medlineplus.gov/xrays.html>] , and gamma rays

What are the sources of radiation exposure?

Background radiation is all around us all the time. Most of it forms naturally from minerals. These radioactive minerals are in the ground, soil, water, and even our bodies. Background radiation can also come from outer space and the sun. Other sources are man-made, such as x-rays, **radiation therapy** [<https://medlineplus.gov/radiationtherapy.html>] to treat cancer, and electrical power lines.

What are the health effects of radiation exposure?

Radiation has been around us throughout our evolution. So our bodies are designed to deal with the low levels we're exposed to every day. But too much radiation can damage tissues by changing cell structure and damaging DNA. This can cause serious health problems, including cancer.

The amount of damage that exposure to radiation can cause depends on several factors, including

- The type of radiation
- The dose (amount) of radiation
- How you were exposed, such as through skin contact, swallowing or breathing it in, or having rays pass through your body
- Where the radiation concentrates in the body and how long it stays there
- How sensitive your body is to radiation. A fetus is most vulnerable to the effects of radiation. Infants, children, older adults, pregnant women, and people with compromised immune systems are more vulnerable to health effects than healthy adults.

Being exposed to a lot of radiation over a short period of time, such as from a radiation emergency [<https://medlineplus.gov/radiationemergencies.html>] , can cause skin burns [<https://medlineplus.gov/burns.html>] . It may also lead to acute radiation syndrome (ARS, or "radiation sickness"). The symptoms of ARS include headache and diarrhea. They usually start within hours. Those symptoms will go away and the person will seem healthy for a little while. But then they will get sick again. How soon they get sick again, which symptoms they have, and how sick

they get depends on the amount of radiation they received. In some cases, ARS causes death in the following days or weeks.

Exposure to low levels of radiation in the environment does not cause immediate health effects. But it can slightly increase your overall risk of cancer.

What are the treatments for acute radiation sickness?

Before they start treatment, health care professionals need to figure out how much radiation your body absorbed. They will ask about your symptoms, do blood tests, and may use a device that measures radiation. They also try get more information about the exposure, such as what type of radiation it was, how far away you were from the source of the radiation, and how long you were exposed.

Treatment focuses on reducing and treating infections, preventing dehydration [<https://medlineplus.gov/dehydration.html>] , and treating injuries and burns. Some people may need treatments that help the bone marrow [<https://medlineplus.gov/bonemarrowdiseases.html>] recover its function. If you were exposed to certain types of radiation, your provider may give you a treatment that limits or removes the contamination that is inside your body. You may also get treatments for your symptoms.


How can radiation exposure be prevented?

There are steps you can take to prevent or reduce radiation exposure:

- If your health care provider recommends a test that uses radiation, ask about its risks and benefits. In some cases, you may be able to have a different test that does not use radiation. But if you do need a test that uses radiation, do some research into the local imaging facilities. Find one that monitors and uses techniques to reduce the doses they are giving patients.
- Reduce electromagnetic radiation [<https://medlineplus.gov/electromagneticfields.html>] exposure from your cell phone. At this time, scientific evidence has not found a link between cell phone use and health problems in humans. More research is needed to be sure. But if you still have concerns, you can reduce how much time you spend on your phone. You can also use speaker mode or a headset to place more distance between your head and the cell phone.
- If you live in a house, test the radon levels, and if you need to, get a radon reduction system.
- During a radiation emergency, get inside a building to take shelter. Stay inside, with all of the windows and doors shut. Stay tuned to and follow the advice of emergency responders and officials.

Environmental Protection Agency

Start Here

- **Contamination vs. Exposure** [<https://emergency.cdc.gov/radiation/contamination.asp>] (Centers for Disease Control and Prevention)
Also in Spanish [<https://emergency.cdc.gov/es/radiation/healtheffects.asp>]
- **Does the Product Emit Radiation?** [<https://www.fda.gov/medical-devices/classify-your-medical-device/does-product-emit-radiation>] (Food and Drug Administration)
- **Get the Facts about Radiation** [<https://newsinhealth.nih.gov/2012/10/looking-inside>]  (National Institutes of Health)
- **Radiation Basics** [<https://www.epa.gov/radiation/radiation-basics>] (Environmental Protection Agency) - PDF

Prevention and Risk Factors

- Radiation Protection [<https://www.epa.gov/radiation>] (Environmental Protection Agency)



Treatments and Therapies

- DTPA (Diethylenetriamine pentaacetate) [<https://emergency.cdc.gov/radiation/dtpa.asp>]
(Centers for Disease Control and Prevention)
Also in Spanish [<https://emergency.cdc.gov/es/radiation/dtpa.asp>]
- Filgrastim (Neupogen) [<https://www.cdc.gov/nceh/radiation/emergencies/neupogenfacts.htm>]
(Centers for Disease Control and Prevention)
Also in Spanish [<https://emergency.cdc.gov/es/radiation/neupogenfacts.asp>]
- Frequently Asked Questions on Potassium Iodide (KI) [<https://www.fda.gov/drugs/bioterrorism-and-drug-preparedness/frequently-asked-questions-potassium-iodide-ki>] (Food and Drug Administration)
- Potassium Iodide ("KI"): Instructions to Make Potassium Iodide Solution for Use During a Nuclear Emergency (Liquid Form) [<https://www.fda.gov/drugs/bioterrorism-and-drug-preparedness/potassium-iodide-ki>]
(Food and Drug Administration)
- Potassium Iodide (KI) [<https://emergency.cdc.gov/radiation/ki.asp>] (Centers for Disease Control and Prevention)
Also in Spanish [<https://emergency.cdc.gov/es/radiation/ki.asp>]
- Prussian Blue [<https://www.cdc.gov/nceh/radiation/emergencies/prussianblue.htm>]
(Centers for Disease Control and Prevention)
Also in Spanish [<https://emergency.cdc.gov/es/radiation/prussianblue.asp>]

Related Issues

- Airport Screening [http://hps.org/documents/airport_screening_fact_sheet.pdf] (Health Physics Society) - PDF
- Cancer in People Exposed to Nuclear Weapons Testing [<https://www.cancer.org/cancer/cancer-causes/radiation-exposure/cancer-among-military-personnel-exposed-to-nuclear-weapons.html>] (American Cancer Society)
- Food Irradiation: What You Need to Know [<https://www.fda.gov/food/buy-store-serve-safe-food/food-irradiation-what-you-need-know>] (Food and Drug Administration)
Also in Spanish [<https://www.fda.gov/food/buy-store-serve-safe-food/la-irradiacion-de-alimentos-lo-que-usted-debe-saber>]
- Nuclear Radiation and the Thyroid [https://www.thyroid.org/wp-content/uploads/patients/brochures/NuclearRadiation_brochure.pdf] (American Thyroid Association) - PDF
Also in Spanish [https://www.thyroid.org/wp-content/uploads/patients/brochures/espanol/radiacion_nuclear_y_la_glandula_tiroides.pdf]
- Sun and Other Types of Radiation [<https://www.cancer.org/cancer/cancer-causes/radiation-exposure.html>]
(American Cancer Society)
Also in Spanish [<https://www.cancer.org/es/cancer/causas-del-cancer/sol-y-otras-formas-de-radiacion.html>]

Specifics

- Accidents at Nuclear Power Plants and Cancer Risk [<https://www.cancer.gov/about-cancer/causes-prevention/risk/radiation/nuclear-accidents-fact-sheet>]  (National Cancer Institute)
Also in Spanish [<https://www.cancer.gov/espanol/cancer/causas-prevencion/riesgo/radiacion/hoja-informativa-accidentes-plantas-nucleares>]
- Acute Radiation Syndrome [<https://emergency.cdc.gov/radiation/ars.asp>] (Centers for Disease Control and Prevention)
Also in Spanish [<https://emergency.cdc.gov/es/radiation/ars.asp>]
- Cell Phones and Cancer Risk [<https://www.cancer.gov/about-cancer/causes-prevention/risk/radiation/cell-phones-fact-sheet>]  (National Cancer Institute)
Also in Spanish [<https://www.cancer.gov/espanol/cancer/causas-prevencion/riesgo/radiacion/hoja-informativa-telefonos-celulares>]

- Consumer Products Containing Radioactive Materials [<http://hps.org/documents/consumerproducts.pdf>] (Health Physics Society) - PDF
- Frequently Asked Questions about Cell Phones and Your Health [https://www.cdc.gov/nceh/radiation/cell_phones_FAQ.html] (Centers for Disease Control and Prevention)
- Non-Ionizing Radiation Used in Microwave Ovens [<https://www.epa.gov/radtown/non-ionizing-radiation-used-microwave-ovens>] (Environmental Protection Agency)
- Radiation Exposure from Medical Exams and Procedures [http://hps.org/documents/Medical_Exposures_Fact_Sheet.pdf] (Health Physics Society) - PDF
- Radiation Exposure in X-Ray and CT Examinations [<https://www.radiologyinfo.org/en/info.cfm?pg=safety-xray>] (American College of Radiology, Radiological Society of North America)
Also in Spanish [<https://www.radiologyinfo.org/sp/info.cfm?pg=safety-xray>]
- Radiation from Cardiac Imaging Tests [<https://www.ahajournals.org/doi/10.1161/CIRCULATIONAHA.112.146043>] (American Heart Association)
- Radionuclide Basics: Iodine [<https://www.epa.gov/radiation/radionuclide-basics-iodine>] (Environmental Protection Agency)
- Radionuclide Basics: Plutonium [<https://www.epa.gov/radiation/radionuclide-basics-plutonium>] (Environmental Protection Agency)
- TENORM (Technologically Enhanced Naturally Occurring Radioactive Materials) [<https://www.epa.gov/radiation/technologically-enhanced-naturally-occurring-radioactive-materials-tenorm>] (Environmental Protection Agency, Office of Air and Radiation)

Clinical Trials

- ClinicalTrials.gov: Radiation Exposure [<https://clinicaltrials.gov/search/open/condition=%22Radiation+Exposure%22>]  (National Institutes of Health)

Journal Articles


References and abstracts from MEDLINE/PubMed (National Library of Medicine)

- Article: Epidemiology and Risk Factors of Melanoma. [<https://www.ncbi.nlm.nih.gov/pubmed/31753105>]
- Article: Raffinose increases autophagy and reduces cell death in UVB-irradiated keratinocytes. [<https://www.ncbi.nlm.nih.gov/pubmed/31710929>]
- Article: Association between solar ultraviolet doses and vitamin D clinical routine data... [<https://www.ncbi.nlm.nih.gov/pubmed/31556901>]
- Radiation Exposure -- see more articles [[https://www.ncbi.nlm.nih.gov/pubmed?term=radiation,ionizing\[majr\]+NOT+\(X-rays\[majr\]+OR+food+irradiation\[mh\]+OR+radiotherapy\[mh\]\)+AND+english\[la\]+AND+humans+\[mh\]+NOT+\(letter\[pt\]+OR+editorial\[pt\]+OR+case+reports\[pt\]+OR+comment\[pt\]\)+AND+%22last+1+Year%22\[edat\]](https://www.ncbi.nlm.nih.gov/pubmed?term=radiation,ionizing[majr]+NOT+(X-rays[majr]+OR+food+irradiation[mh]+OR+radiotherapy[mh])+AND+english[la]+AND+humans+[mh]+NOT+(letter[pt]+OR+editorial[pt]+OR+case+reports[pt]+OR+comment[pt])+AND+%22last+1+Year%22[edat])]
- Radiation pollution -- see more articles [[https://www.ncbi.nlm.nih.gov/pubmed?term=radioactive+pollutants\[majr\]+NOT+radon\[mh\]+AND+english\[la\]+AND+humans\[mh\]+NOT+\(letter\[pt\]+OR+editorial\[pt\]+OR+comment\[pt\]\)+AND+%22last+1+Year%22\[edat\]](https://www.ncbi.nlm.nih.gov/pubmed?term=radioactive+pollutants[majr]+NOT+radon[mh]+AND+english[la]+AND+humans[mh]+NOT+(letter[pt]+OR+editorial[pt]+OR+comment[pt])+AND+%22last+1+Year%22[edat])]

Reference Desk

- RADinfo Glossary of Radiation Terms [<https://www.epa.gov/enviro/radinfo-glossary-radiation-terms>] (Environmental Protection Agency, Office of Air and Radiation)

Find an Expert

- Centers for Disease Control and Prevention [<https://www.cdc.gov/>]
Also in Spanish [<https://www.cdc.gov/spanish/>]
- National Center for Environmental Health [<https://www.cdc.gov/nceh/>] (Centers for Disease Control and Prevention)
- National Institute of Environmental Health Sciences [<https://www.niehs.nih.gov/>] 
Also in Spanish [<https://www.niehs.nih.gov/health/scied/teachers/educacion/>]

Children

- What Parents Should Know about Medical Radiation Safety
[https://www.imagegently.org/Portals/6/Parents/Image_Gently_8.5x11_Brochure.pdf]
(Alliance for Radiation Safety in Pediatric Imaging) - PDF
- What You Should Know About Pediatric Nuclear Medicine and Radiation Safety
[<https://www.imagegently.org/Portals/6/Nuclear%20Medicine/Parent%20Brochure%208th%20Grade.pdf>]
(Alliance for Radiation Safety in Pediatric Imaging) - PDF

Teenagers

- RadTown USA: Basic Information [<https://www.epa.gov/radtown>] (Environmental Protection Agency)

Women

- X-Rays, Pregnancy and You [<https://www.fda.gov/radiation-emitting-products/medical-x-ray-imaging/x-rays-pregnancy-and-you>] (Food and Drug Administration)

Patient Handouts

- Radiation sickness [<https://medlineplus.gov/ency/article/000026.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/000026.htm>]



MEDICAL ENCYCLOPEDIA

Hyperbaric oxygen therapy [<https://medlineplus.gov/ency/article/002375.htm>]

Radiation sickness [<https://medlineplus.gov/ency/article/000026.htm>]

Related Health Topics

Electromagnetic Fields [<https://medlineplus.gov/electromagneticfields.html>]

Radiation Emergencies [<https://medlineplus.gov/radiationemergencies.html>]

Radiation Therapy [<https://medlineplus.gov/radiationtherapy.html>]

Radon [<https://medlineplus.gov/radon.html>]

Sun Exposure [<https://medlineplus.gov/sunexposure.html>]

National Institutes of Health

The primary NIH organization for research on *Radiation Exposure* is the National Institute of Environmental Health Sciences [<http://www.niehs.nih.gov/>]

Other Languages

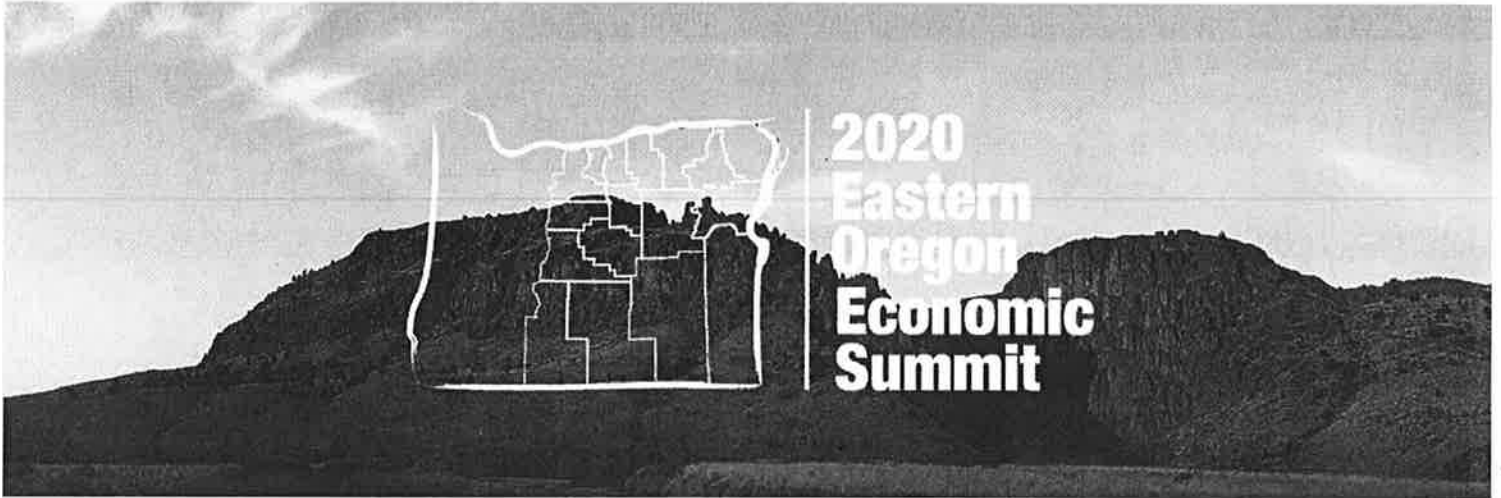
Find health information in languages other than English [<https://medlineplus.gov/languages/radiationexposure.html>] on *Radiation Exposure*

MedlinePlus links to health information from the National Institutes of Health and other federal government agencies. MedlinePlus also links to health information from non-government Web sites. See our disclaimer [<https://medlineplus.gov/disclaimers.html>] about external links and our quality guidelines [<https://medlineplus.gov/criteria.html>] .

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Questions

Bobby Levy, EOWC President
541-561-5557
bobby@eowc.biz

Phil Scheuers, Pac/West Communications
541-66-7150
scheuers@pacwestcom.com

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- Logo on lanyards
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- Complimentary exhibit booth (1 space)

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- Medium logo on summit registration website
- Medium logo on summit registration materials
- Medium logo on summit packet
- Complimentary event registration (5 tickets)
- Complimentary exhibit booth (1 space)

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- Small logo on summit registration materials
- Small logo on summit packet
- Complimentary event registration (2 tickets)

Bronze Level - \$500

- Name on summit registration website
- Name on summit registration materials
- Name on summit packet
- Complimentary event registration (2 tickets)



PLEASE INCLUDE correspondence tomorrow.

Thank you

Melissa Lindsay
Morrow County Commissioner
PO BOX 788
Heppner OR 97836
Cell: 541-561-0234



www.CO.Morrow.Or.US

From: Paul Anderes <panderes@union-county.org>
Sent: Monday, February 17, 2020 3:34 PM
To: Harvest Rich <hrich@union-county.org>

Subject: Proclamation SB1530 VOTE needed

[EXTERNAL]

EOCA Commissioners, Judges & Chairs,

Please consider the attached proclamation and indicate your support or non-support.

Please reply to Harvest Rich, EOCA Coordinator, by 3:00pm Tuesday February 18, 2020.

As you are well aware, this is highly time sensitive.

The request to Harvest will to put the proclamation on EOCA letterhead, add supportive commissioners, Judges & Chair's signatures to the document, and forward to Oregon House & Senate members prior to noon on Wednesday February 19 at noon.

Any questions can be directed to either EOCA Chair Roberts or me.

Thank you to your attention to this vital matter,

pa

Paul M. Anderes
Union County Commissioner
1106 K. Ave
La Grande, OR 97850
panderes@union-county.org
541-963-1001

PROCLAMATION

Eastern Oregon Counties Association

WHEREAS, Eastern Oregon Counties Association (EOCA) represents 14 Oregon Counties and approximately 500,000 Citizens living productively on 2/3 of Oregon's land mass and

WHEREAS, positions and opinions on both sides of Senate Bill 1530 have been made based upon partisan politics and philosophical positioning rather than fact and an ecological *and* economic study of the potential impacts of this legislation on each of the 36 Counties in Oregon has not been conducted, and

WHEREAS, with an emergency clause attached to this legislation, a rushed decision without an opportunity for the people of Oregon to speak is not how our great State should do business, and

WHEREAS, "carve outs" for particular sections of our economy reflect weak legislation and give the illusion of politics and favoritism rather than good policy, and

WHEREAS, Eastern Oregon Counties provide a wide range of critically services to its residents including health and human services, roads, parks, public safety, and the some of the most productive and efficient agricultural and forested lands in Oregon; and

WHEREAS, SB1530 will directly impact Eastern Oregon Counties with significant increases in the costs to provide services through increased utility rates and increased costs in fuel, related to providing those critical services; and

WHEREAS, SB1530's impacts through increased utility and fuel costs will further burden the residents of Eastern Oregon Counties who are already burdened by the higher cost of living in our communities because of higher rents, increased costs to purchase a home, and additional tax burdens placed on them by the State of Oregon; and

WHEREAS, any benefits derived through SB 1530, many of which are in dispute, do not justify the penalties and costs imposed by the Bill, and

NOW THEREFORE,

The Eastern Oregon Counties Association PROCLAIMS:

EOCA is opposed to Senate Bill 1530 of the 80th Oregon Legislative Assembly, which will have punitive impacts on EOCA, and the citizens of Eastern Oregon.

Signatures from each Commissioner

ps need to add Lake County to footer