Radiation Information Concerning Remediation Cleanup of Lowerline Street.

The Environmental Protection Agency (EPA), the Louisiana Department of Environmental Quality (LDEQ) and the City of New Orleans are addressing radiation contamination found under Lowerline Street, New Orleans, LA near Lowerline and Coolidge Streets. The Department of Energy (DOE) identified this contamination in 2013 as part of radiation sweep around the Super Dome before an event. The DOE re-performed the radiation sweep in 2018 and confirmed a radiation source was below the road surface of Lowerline Street. The source was reported and confirmed to be low level radiation that did not pose a risk to human health or the environment in is current state. DOE notified LDEQ and LDEQ notified the City of New Orleans. To ensure against accidental disturbance and possible exposure risk, in 2019, the City of New Orleans contracted with American Radiation Services (ARS) to perform remediation of the low level radiation source. LDEQ maintained oversight of the remediation project. The radiation source was determined to be Radium-226 and the extent of the contamination was shown by survey to extend beyond the original scope of the area. All radioactive material was surveyed and identified to be located under the public roadbed with none extending above the asphalt roadway. The City of New Orleans contacted EPA to request assistance with completing the remediation project.

Common radiation facts:

Radiation Terms and Units:

Scientists measure radiation in different ways. Sometimes, they measure the dose that a person receives from a radioactive source, and sometimes they measure the amount of radioactivity in water, or in soil, or in the air.

Radioactivity refers to the amount of ionizing radiation released by a material.

Exposure describes the amount of radiation traveling through the air. Many types of radiation monitors measure exposure.

- **Absorbed dose** describes the amount of radiation absorbed by an object or person.
- **Effective dose** describes the amount of radiation absorbed by person, adjusted to account for the type of radiation received and the effect on particular organs. **More commonly, dose is measured in units of: millirems or millisieverts. A millirem (mrem) is one thousandth of a rem. A millisievert is one thousandth of a sievert.**

DOE found that the radiation level at the surface of the Lowerline Street was reading a radiation reading of 1 mrem per hour.

1 mrem (0.01 mSv) Dose Equals...

3 days of background radiation in Atlanta.

2 days of background radiation in Denver.

1 year of wearing a watch with a luminous dial.

1 coast-to-coast airline flight.

1 year of living next door to a normally operating nuclear power plant.

A medical chest x-ray is equivalent to a ten (10) mrem radiation exposure.

Time / Distance / Shielding:

Radiation exposure is reduced by time, distance, and shielding to a person. The exposure increases because of any of these three factors change as time increases, distance shortens, and reduced shielding. As long as the surface street remained in place, the public was in no harm from the radiation source found below several layers of street surface buildup from over the multiple decades. The concern dealing with Lowerline Street was the possibility of future road construction removing the asphalt surfaces, which provided shielding to expose public workers and potentially neighbors from radioactive contaminated soil.

Summary:

The EPA, LDEQ and the City of New Orleans are overseeing this remediation project and assure the citizens of New Orleans that proper remediation techniques will be employed, appropriate disposal of radioactive contaminated soil will occur and the highest level of safety will be employed. We want to ensure that this material is removed and the area returned with as little impact to the neighborhood as possible. Once the project begins, it should only take a few weeks to complete.

If you have any questions or concerns, please contact LDEQ, Karen Burgard, Radiation Manager at 225-219-3670, or James Pate, Environmental Scientist DCLA at 225-219-3642.