



Missouri Department of Health and Senior Services

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Gail Vasterling
Director



Jeremiah W. (Jay) Nixon
Governor

September 22, 2014

Dr. Robin Ikeda, Acting Director
National Center for Environmental Health / Agency for Toxic Substances and Disease Registry
Centers for Disease Control and Prevention
4770 Buford Hwy NE
Atlanta, GA 30341

Re: St. Louis FUSRAP Sites – Radiation Dose Reconstruction Request

Dear Dr. Ikeda:

For more than 25 years, the Missouri Department of Health and Senior Services (DHSS) has assisted in the oversight of assessment and remediation at Formerly Utilized Sites Remedial Action Plan (FUSRAP) sites in St. Louis, Missouri. Throughout this time, DHSS has responded to local citizens' concerns and has conducted several studies of cancer incidence and mortality in the St. Louis area. Recently, DHSS completed an updated analysis of cancer incidence data collected around Coldwater Creek, which is included in the Record of Decision boundary for the St. Louis FUSRAP sites. This analysis concludes that the number of incident cases of leukemia was statistically significantly higher in the area and time period under study. A copy of the DHSS report, *Analysis of cancer incidence data in eight ZIP code areas around Coldwater Creek, 1996-2011*, is attached with this letter. Based on the proximity of this finding to the St. Louis FUSRAP sites, DHSS is requesting that the Centers for Disease Control and Prevention (CDC), National Center for Environmental Health / Agency for Toxic Substances and Disease Registry (ATSDR) partner with DHSS to design and implement a study aimed at investigating cancer incidence and environmental exposures in the areas surrounding the St. Louis FUSRAP sites. In addition, DHSS is requesting your agency consider performing a dose reconstruction study that includes evaluation of past and current radiological exposures in communities located near the St. Louis FUSRAP sites.

FUSRAP is an environmental remediation program established by the U.S. government to address radiological contamination from activities related to development of nuclear weapons by the Manhattan Engineering District and Atomic Energy Commission (AEC) in the 1940s through 1960s. The U.S. Department of Energy (DOE) was responsible for the remediation of the FUSRAP sites from the late 1970s until 1998, when the federal government transferred authority to the U.S. Army Corps of Engineers (USACE). From the 1940s to the mid-1970s, uncovered and improper storage, handling, and transport of radiological wastes generated from uranium extraction processes resulted in extensive

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contamination of several sites and transport routes in St. Louis, which are currently being investigated and cleaned up under FUSRAP.

Uranium extraction waste materials were initially stockpiled at a site in North St. Louis County located close to Lambert International Airport. This site became known as the St. Louis Airport Site (SLAPS). In the 1960s and 1970s, some of the stockpiled waste material was sold by the AEC to a private company, which transported the material north of SLAPS to a location that became known as the Hazelwood Interim Storage Site (HISS) and Futura Coatings Company site (Futura). The North County FUSRAP site consists of the SLAPS, HISS, Futura, and 78 vicinity properties (known as SLAPS VPs). SLAPS VPs include the portion of Coldwater Creek from Banshee Road to its confluence at the Missouri River affected by runoff from the SLAPS, HISS, and Futura. Coldwater Creek passes through several North St. Louis County communities, including Florissant, Hazelwood, Black Jack and Spanish Lake.

The public has long-standing concerns that community residents' health may be impacted by current and/or past exposure to radioactive materials released from the St. Louis FUSRAP sites, particularly the sites in North St. Louis County where the radiological waste was stored (i.e., SLAPS, HISS, and Futura). A main concern expressed by the community is exposure to contaminants in Coldwater Creek. Apart from exposure to radiological contaminants from the creek, other potential community exposure routes include past occupational exposures and past recreational exposures. Radiological isotopes of concern include radium-226, thorium-230, and uranium-238.

Public concerns prompted the Cancer Inquiry Program at DHSS to investigate cancer incidences in populations living near Coldwater Creek, including cancers frequently associated with radiation (leukemia, thyroid and female breast) as well as several other cancers of concern to local citizens (including colon, prostate, appendix, lymphoma and melanoma). In 2012 and 2013, as part of ongoing surveillance and in response to community concerns, DHSS completed a comprehensive review of cancer incidence in the area around Coldwater Creek. A follow up study of cancers diagnosed in the area during 1996 to 2011 was done in 2014, in which DHSS found statistically significantly increased incidences of leukemia in those living in an eight zip code area surrounding Coldwater Creek. However, DHSS is unable to conclude whether exposure to radiological contaminants from the FUSRAP sites may have contributed to increased cancer risks in the area.

In light of public concerns, the extent of past contamination, and the findings of the cancer inquiry, DHSS believes that the potential public health impacts of radiological contamination at the FUSRAP sites deserve further evaluation. Possible study designs may include a case control study or retrospective cohort study that investigates potential radiological exposure histories in targeted populations. A wide array of information will need to be collected on the selected population (e.g., socio-demographic information; residential, occupational, health, and family histories; and lifestyle and behavior factors) for an in-depth study of the potential health impacts of radiological contamination in the area. DHSS proposes to gather a group of experts to design and implement the best study option.

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The panel should include representation from state and federal health and environmental agencies, academia and the public.

The assistance of federal partners such as ATSDR is critical to the success of this proposal. DHSS is requesting that ATSDR provide assistance to DHSS and other partners on the proposed expert panel in assessing future study options and in designing and implementing the chosen option. In addition to a request for technical assistance throughout the course of the study, DHSS is requesting that ATSDR consider providing financial assistance during the design and implementation stage of the study.

In addition to the health study options discussed above, a dose reconstruction study could be an important next step in addressing public health concerns, including concerns about increased incidences of cancers in the area. Therefore, DHSS requests your agency consider performing a dose reconstruction study that includes evaluation of past and current radiological exposures in communities located near the St. Louis FUSRAP sites.

Questions and follow up regarding this request can be addressed to Cherri Baysinger, Administrator, Section for Epidemiology for Public Health Practice, at cherri.baysinger@health.mo.gov or by phone at 573-522-2808. Thank you for your agency's partnership in the past and moving forward on these important issues.

Sincerely,

A handwritten signature in black ink, appearing to read "Gail Vasterling". The signature is fluid and cursive, with a large, stylized "G" at the beginning and a long, sweeping tail at the end.

Gail Vasterling
Director

GV/dm