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Environmental report actualization for the license renewal of the University of Missouri Research Reactor Center

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Licensing requirements for power as well as non-power reactors must address environmental concerns related to radioactive emissions. The purpose and need for the renewal of the operating license for the Missouri University Research Reactor (MURR) is to allow continued studies in nuclear related undergraduate and graduate level degree programs along with continued production of radioactive isotopes for cancer treatment and research for an additional 20 years beyond the current license of 40 years which expires on November 21, 2006. The MURR is a multi-disciplinary research and education facility that provides a wide range of analytical, radiographic, and irradiation services to the research community and the commercial sector. The licensing requirements are established by the U.S. Nuclear Regulatory Commission in 10 CFR § 51.45 Environmental Reports - General Requirements. As part of the license renewal process the environmental report which was created on 2001 needed to be updated and revised to assure of the quality of the information. To study the hypothetical dose received by the public from the radioactive emissions that are released by the MURR during normal operations, the Environmental Protection Agency (EPA) COMPLY program was utilized. This program is intended for use by NRC licensees and non-DOE federal facilities to determine if they meet the radiation dose standards imposed by EPA under the Clean Air Act. COMPLY was utilized using an average of the last 10 years of the stack effluent which was measured in Curies per year. The results obtained from the program indicated that the MURR is in compliance for the emission released to the atmosphere.