



Home > About NRC > How We Regulate > Research Activities > Analysis of Cancer Risk in Populations Near Nuclear Facilities: Phase 1 Feasibility Study

Analysis of Cancer Risk in Populations Near Nuclear Facilities: Phase 1 Feasibility Study

Nuclear facilities licensed by the U.S. Nuclear Regulatory Commission (NRC) sometimes release very small amounts of radioactivity during normal operations. These releases are a very small fraction of background radiation and the amount of radiation the average U.S. citizen receives in a year from all sources. NRC regulations ensure that plant operators monitor and control these releases to meet very strict radiation dose limits, and plants must publicly report these releases to the agency. Nonetheless, some communities have expressed concern about the potential impact of these releases on the health of citizens living near nuclear facilities.

To help address these concerns, the NRC has asked the National Academy of Sciences (NAS) to perform a state-of-the-art study on cancer risk for populations living near NRC-licensed nuclear facilities. Through this NRC-sponsored study, NAS will use its expertise to update the 1990 report, entitled "*Cancer in Populations Living Near Nuclear Facilities*," published by the U.S. National Institutes of Health, National Cancer Institute (NCI). The NRC currently uses this 1990 NCI report as a primary resource when communicating with the public about cancer mortality risk in counties that contain or are adjacent to nuclear power facilities. In particular, the 1990 NCI report concluded that cancer mortality rates are *not* elevated in these populations.

Under the new study, the NRC has asked NAS to evaluate *cancer diagnosis rates* (in addition to *mortality risk*) for populations living near decommissioned, operating, and proposed NRC-licensed nuclear facilities. NAS will study nuclear power plants that generate electricity, as well as facilities that create the nuclear fuel used in the power plants.

Phase 1 of the NAS study will determine whether it is feasible to develop a technically defensible approach to meet the goals of the study request. If so, NAS will develop that approach using sound scientific processes for evaluating cancer risk that could be associated with nuclear facilities. The result of this Phase 1 study will be used to inform the design of the cancer risk assessment that will be carried out in a future Phase 2 study.

To learn more, see the Related Information toolbar on this page.

Page Last Reviewed/Updated Thursday, June 09, 2011

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