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Occupational exposure related to quartz is internationally still an issue, and with many Swedish foundry workers exposed to air levels of respirable quartz exceeding the occupational exposure limit. No comprehensive survey regarding quartz exposure in Swedish iron foundries have been carried out since the late 1970s and no epidemiological studies of cancer disease in Swedish iron and steel foundries have been carried out. At many work operations in iron foundries quartz exposure still occurs at high concentrations and there is a need to describe the exposure. International studies on quartz exposures and cancer in iron foundries are also sparse. The aims of the studies underlying this thesis were to assess the exposure to quartz in Swedish iron foundries and to determine the cancer morbidity for Swedish foundry workers.