

centage lost to follow-up was extremely high (16%). The Hanis et al [1979] study suffered from the lack of availability of employment job histories prior to the ten-year observation period. The Thomas et al [1982] study inherited all the problems associated with PMR studies, in terms of both methodology and completeness of death ascertainment. The Exxon study [Hanis et al, 1982] had a short follow-up and most of the mortality experience was contributed by retirees. The API-MSKCC study [Schottenfeld et al, 1981] was limited to active and retired employees, and had only three years of observation. Reporting in the API-MSKCC program was likely incomplete.

In spite of these limitations, these epidemiologic studies have revealed a number of cancer sites with significant excesses among individuals exposed to petroleum and its by-products, when compared to the general population or to non-exposed employees. Table 1 summarizes the site-specific cancer risk by study. It appears that refinery workers may be at higher risk of a number of cancers: in particular, cancer of the respiratory system, stomach, lymphopoietic tissues and, perhaps, brain. However, it must be pointed out that there are a number of conflicting findings among the studies surveyed (such as inconsistency in lung cancer risk). Furthermore, none of the studies has yet identified any specific agent(s) responsible for any excess, except for the relationship between leukemia and benzene identified by Rushton and Alderson [1981b].

Concerned with the possible health risk associated with employment at refineries, Mobil Oil Corporation initiated its own epidemiologic study of Mobil employees at the Paulsboro refinery. This report covers the entire mortality study as conducted in two parts: Part 1 - Data Collection and Reduction; and Part 2 - Analysis of the Cause-Specific Mortality Experience.

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PLAINTIFF'S EXHIBIT

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