

4

May 23, 1990

I have reviewed the records which you sent under a memorandum dated May 10, 1990, in the case of Warren vs. BFG. My answers to your questions follow:

1. Liver cancer has not been demonstrated in this case; it is only presumed. I quote from the report of the lung biopsic dated 30, June 1987, "In view of the clinical history of multiple lesions in lungs and brain associated with CAT scan findings of a large lesion in the liver, it is likely that the lesions in this specimen represent metastases from a primary hemangiosarcoma of the liver. Alternatively, it is possible that they represent multifocal development of a malignant vascular neoplasm. A factor VIII immunoperoxidase stain will be done to confirm the vascular nature of this tumor and will be reported at a later date as a supplementary report."

The supplementary report confirmed the vascular nature of the report. The liver biopsy of 8 June 1987, was reported as negative for malignant cells and stated a benign soft tissue tumor such as hemangioma could not be ruled out.

2. As you know, vinyl chloride is a recognized cause of angiosarcoma of the liver, but has not been associated with angiosarcoma of other sites. There are other causes of angiosarcoma of the liver and cases of angiosarcoma of the liver with no demonstrable known cause. Given the doubt as to the presence of any malignancy in the liver and specifically the absence of demonstrated hemangiosarcoma of the liver, I cannot say that vinyl chloride was a likely cause of the cancer in this case.
3. As indicated in my answer 1 above, it is possible that this represents multifocal development. Another possibility is that a primary tumor existed at an undetermined site, since investigation of this case appears to have been confined to the liver, lungs and brain.

UCC 082131

May 23, 1990
Page 2

4. As indicated above, vinyl chloride has been associated causally only with those angiosarcomas arising in the liver. I would not attribute angiosarcoma arising at other sites to vinyl chloride on the basis of what is known at present.
5. I believe we now have an adequate collection of medical records.

UCC 082132