

pared for speech by KCC at Cincinnati May 54

THE YELLOWKNIFE STORY

In 1949, reports of poisoning of wildlife and domestic cattle by arsenic brought to light a serious air pollution problem in the Canadian North West where two mines roasting arsenic bearing-ore bracketed a townsite with a population of 3,000 persons. The roaster fumes, containing a high percentage of arsenic trioxide, had been freely discharged to the atmosphere at the rate of 20 tons per day for around two years.

Control measures were immediately recommended but could not be installed rapidly. Meanwhile arsenic pollution increased. In January 1951 one mine installed a scrubber, later in the year the other mine installed an electrostatic precipitator.

A continuing environmental survey of arsenic in water, air and vegetation had been set in motion in late 1950 and the following lantern slide indicates the change in pollution load following installation of control measures.

It will be noted that in January 1951 the first control measure - the scrubber installation - brought about a marked reduction. This mine had been discharging 12 tons per day.

It will be noted that the installation of the electrostatic precipitator was made in November 1951 and brought about a further reduction. This mine had discharged 8 tons per day. In June, 1952, this mine increased roaster tonnage from 1600 to 2800 tons per month. This caused a small rise in air-borne arsenic because the collector always permitted a small percentage to escape.

During the past year a constant level appears to have been reached. This level of pollution appears to be tolerable as adverse clinical effects have not been observed.

Suggest this be followed by brief description of clinical picture as provided by Dr. Henderson.

K. Kay