earth and chemical covers, respectively; the odors from the drainpipe were addressed by a gas collection system. A combustion unit was installed in the summer of 1981 to oxidize vapors from the pipe (Reitz & Jens, Nov. 18, 1981). A new leachate collection well installed in August 1981 also presented an odor problem, and was similarly connected to the burner (Reitz & Jens. Nov. 18, 1981).

In 1982, settling of cover materials along Taussig Road (immediately east of the north quarry pit) allowed landfill gases to escape, necessitating expansion of the gas collection system (Reitz & Jens, Mar. 8, 1982). Four gas collection wells were drilled into the rock windrow adjacent to the pit wall, connected to a header system and the gas burner.

The gas collection system was expanded to include six additional collection wells located southwest of the blower location. A trench rock well system was installed to collect landfill gas in the former Black Diamond Lake pit area. Expansion of the landfill into the south pit necessitated further modification of the gas collection system to include additional gas collection wells and an enclosed flare with increased capacity. The active landfill system collects gas from the four leachate collection sumps and four additional gas collection wells. These eight collection points are connected to a dual above-grade header system which leads to the gas flare.

2.5.4 Landfill Fire

In 1993 an underground fire of unknown origin was detected along the northern quarry wall of the area originally permitted under Permit No. 118909, immediately east of the flare station (Figure 2-21). To determine the extent of the fire, SCS Engineers of Cincinnati, Ohio conducted an infrared thermograph study. The results of the study in conjunction with temperature probe information showed that the fire was concentrated immediately surrounding the quarry wall, east of the flare station (SCS, May 17, 1994). No underground lateral migration was detected. The area which separated from the quarry wall has been sealed with cement slurry. Temperature probes continue to be monitored.