We report on the results of a search using the VLA for redshifted HCN(1–0) emission from the host galaxy of BR B1202−0725, an optically luminous quasar at $z = 4.695$. The host galaxy emits strongly in the rest-frame far-infrared, and shows characteristics very similar to those of more local ultraluminous infrared galaxies, in which a significant fraction of the far-infrared emission is powered by star formation. We find a 3-$\sigma$ upper limit to the HCN(1–0) emission of $4.9 \times 10^{10}$ K km s$^{-1}$ pc$^2$, assuming a $\Lambda$-cosmology. This limit is consistent with correlations derived from measurements of HCN, CO, and far-infrared emission for a sample of more local galaxies including starbursts (Solomon et al. 1992a).