Evidence of local distortions in the filled skutterudite compounds LOs4Sb12 (L = Nd, Pr, Eu) from EXAFS studies TREVOR KEIBER, FRANK BRIDGES, UC Santa Cruz — We present a temperature dependent extended x-ray absorption fine structure (EXAFS) analysis on skutterudite compounds of the form LOs4Sb12 for L the rare earth elements Nd, Pr, Eu. We find the L-Sb and Os-Sb peaks are well ordered while the X-Os and Os-Os peaks show anomalous behavior for X = Nd and Pr. We propose a distortion of the lattice structure to account for these changes.