

Crusher House Audio Tour

Chapter 10, Stop 9

2:41

The ore from Soudan was vital to the early steel making furnaces. Its high-grade ore content – approximately 60-70 percent iron and its high oxygen content – approximately 30 percent, made the ore a valuable commodity. Small lumps of the ore were added to the other ores in the furnaces and it quickly melted in the molten mixture. The oxygen was released, which helped break up the high carbon slag in the mixture resulting in high quality steel. It was like a baker making her favorite cookie recipe – one ton of regular ore, plus ¼ ton of Soudan ore, heat, remove slag and wha-la you have your high quality steel.

Unlike other ores on the Minnesota Iron Ranges, the Soudan ore did not need any processing other than crushing it into 7” lumps. This is where the Crusher House entered the operation. When the rock was blasted underground, it was left in many different shapes and sizes. To make the steel making process operate smoothly, the ore needed to be at most 7”.

When the ore was hauled to the surface, it was dumped in the Larry car and transported to the Crusher House. There are two crushers located here and both of them were manufactured by Allis Chalmers – one in 1893 and one in 1917. The 1893 crusher was originally installed at the Alaska shaft. It was later moved to this building as operations shifted to the No. 8 shaft.

As the ore moved from the shaft to the crusher, it followed a set of railroad tracks. Depending on what crusher it was going to, determined what set of tracks it would follow. Once in the crusher the ore was dumped into the opening of the crusher, crushed, and then transported on a conveyor to the trestle area.

When you finish listening to this chapter of the audio tour, you can watch a brief video in the crusher, which explains the entire process. You are also invited to walk around the different levels of the Crusher House. On one level you will find a small building within the Crusher House. This was the warming shack. During the winter months, when it was very cold in the Crusher House, the crusher operators could go to the warming shack to warm up. The Crusher House is not fully enclosed, so it was not heated.

While the mine was operating, the sound of the crusher could be heard throughout the entire community. It was like the heart beat of the area. When the mine shut down and the crusher stopped, it became awfully quiet and the heart of the community stopped. Over time the area has found ways to support itself and the former miners and their families have moved on, which goes to show the resiliency of the miners.