



YADKIN FALLS DAM AND POWER-HOUSE

Starting Up at Yadkin Falls

After many weeks of strenuous work thru the winter to keep up to our schedule, which had May 1 fixed as the starting date; April 26 found us about ready to start drying out the generators and trying out the waterwheels. About this time, Mr. Rickey must have begun to think that we really meant to keep our promise, and that we might have the plant in operation before he could get here, as we received an S. O. S. call at the eleventh hour which asked us not to start until he could get here, which would not be until May 6, six days behind schedule. This great delay caused some little comment, especially as we had no explanation. After some deliberation, it was decided that he must be planning for some little ceremony, and that when he did arrive the launching or rather starting would be made in due form. We then began to talk of where the bottle should be broken, and as to whether or not the flying glass and flowing liquid might do any harm to the machinery, etc., and the six days passed very quickly. On the morning of May 6, word was received that Mr. Rickey was in town, and would be down to the Falls Power-House in an hour. All was excitement, the various machinery manufacturers' representatives were dodging here and there, trying this valve and feeling of that bearing, with mouths watering and a twinkle in their eyes. Then Mr. Rickey and Mr. Thorpe appeared on the scene, and all was quiet. You could have heard a pin drop anywhere. Mouths closed and eyes took a look of questioning anxiety. They were alone and empty-

handed, a possibility which no one seemed to have thought of. After a few handshakes, each one drew back to his appointed place, awaiting the word which was to start the roaring waters of Yadkin Falls on their long job of making aluminum, and incidentally a few dollars for Mr. Tallassee. Our worst fears were realized when Mr. Rickey explained that all he wanted to do was to press the little button which opened the gates and let the water into the large turbine, or waterwheel. This was soon done. The turbine moved slowly, then faster, and Yadkin Falls Power-House was officially added to the long list of those making power for the manufacture of aluminum. After a trip across the dam, Mr. Rickey decided that his work was done, and returned to Badin.

The real serious work of drying out the generators, checking connections, adjusting governors, turbines, oiling systems, etc., was then begun. About the first thing that developed was that, after the turbine was once running, it was found that it could not be stopped by the ordinary method of closing the turbine gates and applying the brakes. This started quite an argument between Mr. Lockman, representative of the S. Morgan Smith Company, turbine builder, and Mr. Walford, representative of the Allis-Chalmers Company, governor builder. As Mr. Lockman is somewhat above average size, and Mr. Walford somewhat under average, someone immediately said "look at Mutt and Jeff." After some little argument between these two, Mr. Seabrooke, representative of the General Electric Company, generator

builder, was called in, and questioned regarding the effectiveness of his brakes, and told that they did not grip hard enough; but Seabrooke maintained that as smoke was pouring out from under the generator, coming from the brake blocks, that they must be doing some good, and that if he put any more pressure on they might take fire. These arguments did not seem to be stopping the turbine, so it was decided to resort to the last possibility, and close the gates in front of the openings to the scroll case of the turbine. It then developed that these gates did not close very well, and enough water leaked thru to keep the turbine going. Cinders were then poured in the lake in front of the gates to stop up the leaks, and in a little while the turbine stopped.

Some adjustments were made, and we started again, this time for about three or four days' run on short circuit to dry out the large generators.

Mr. Bostwick then arrived, and viewed the plant. On May 11, it was decided that the generators would be dry enough, and that they could be built up to normal voltage, phased out, and paralleled with machines in Yadkin Narrows Power-House. Mr. Bostwick was asked to stay over to see how things worked out. On May 12, another attempt was made to shut down and stop the wheels, with the same results as when the first stop was made—such an argument between the waterwheel man and the governor man developed that each was determined to show the other that he was wrong, and each started to take apart his part of the machinery, and it was only with difficulty that they were prevented from getting the machines in such shape that they could not be run at all. At best, another start could not be made until late in the afternoon. The alternators were then slowly built up to line potential, and a check was made for phase rotation, and much to our disappointment we found that it would be necessary to change connections before we could parallel with machines in Yadkin Narrows Power-House. It was then nearly five p. m. A car was off the track a little ways from the Power-House, and it looked as tho we might have to walk to Badin, so we decided to wait until the next day for further checks, and in the meantime the connections at the switch house at Badin were being changed. The next day brought dark and rainy, but a start was made and it was then found that when the turbine was up to normal speed