

The Castle Meads fireless loco

by Stephen Mills

March 2021

Members will recall the fireless steam locomotive that was mentioned in connection with the recent article on Castle Meads power station in Gloucester.

The idea behind the fireless concept was that the engine was based partly on existing well-proven technology, but unlike a conventional engine, did not need a firebox and boiler. Instead, the loco's steam reservoir or accumulator (which effectively replaced the boiler) was filled with superheated water under pressure provided from an external source. The loco operated like a conventional steam engine, using the high pressure steam above the water in the accumulator. As the steam was used, the pressure dropped, causing the superheated water to boil, constantly replenishing the supply.

On the plus side, the system made locomotives cheaper to build and run, and cleaner to operate. But clearly, they could only operate for a limited time before they needed recharging. Fireless locos were often used for shunting duties in industrial plants, factories, and coal-fired power stations, as at Castle Meads, where a source of superheated water for refilling was readily available.

The Castle Meads loco (No. 2126) weighed 21 tons and was built in 1942 by Andrew Barclay & Co of Kilmarnock. Only 163 fireless locos were built in Britain. The Gloucester loco was first used to shunt coal wagons from the riverside wharf, where coal for the power station was unloaded from boats (some from south Wales) using a steam crane. There were four steel coal wagons built by Gloucester Carriage and Wagon works that 2126 moved two at a time. Apparently, it took around one and a half days to fully unload a coaster. In later years, coal came on site via the main railway system, and 2126 took up shunting duties around the power plant.

The loco was originally supplied in 'wartime' grey paint, but was repainted on several occasions, finally ending up wearing CEGB green (see photo). GSIA member Mike Smith visited Castle Meads and was shown the loco in 1967 or 1968. He recalls that the site manager was very proud of it - it was in immaculate condition. After the power station's closure, in 1973, it was donated to the Dowty Railway Preservation Society at Ashchurch. It later spent time as a stationary exhibit at Toddington on the Gloucestershire Warwickshire Railway, before being relocated in 1988 to the National Waterways Museum at Gloucester Docks. It is now at the Vale of Berkeley Railway where a cosmetic restoration is planned.

[photos on next page]

