

Overview of Unit 6B of Power Plant (#1 and #2)

1. Overview of Unit #1

1 . Device operation overview

Unit #1 is a PG 6581 gas turbine manufactured by Nanjing Turbine & Electric (Group) Co., Ltd., which commenced commercial operation in September 2004. Under ISO conditions, the unit delivers 42 MW of power (natural gas). As of January 1, 2018, it has achieved 867 successful ignition starts, 894 total startups, 84 tripping incidents, 17,962 hours of heavy oil operation, 465 hours of light oil operation, and 0 hours of natural gas operation. The units total operational time stands at 18,427 hours.

2 . Overview of equipment maintenance

order number	Maintenance time	Main contents of maintenance	unit running time
1	2005.2	Replace the third-stage nozzle of the rotor, auxiliary thrust bearing, and bearing No.1 and No.2.	1635(1580, 55)
2	2006.5	Replacement of 10 transition sections, 10 flame tubes, and primary nozzle, elimination of generator rotor inter-turn short circuit	7886(7718, 168)
3	2007.5	Replace the first-stage nozzle, first, second, and third-stage moving blades, No.2 gasket, 10 transition sections, and 10 flame tubes, etc.	13155 (12868, 287)
4	2010.10	oil to gas conversion	18427 (17962, 465)

II. Overview of Unit #2

1 . Device operation overview

Unit #2 is a PG 6581 gas turbine manufactured by Nanjing Turbine & Electric (Group) Co., Ltd., which commenced commercial operation in February 2005. Under ISO conditions, the unit delivers 42 MW of power (natural gas). As of January 1, 2018, it has undergone 850 ignition attempts, 890 total startups, and 59 tripping incidents. The light oil operated for 458 hours, the heavy oil for 17,351 hours, and the natural gas for 68 hours, with the total unit operation time reaching 17,878 hours.

II. Overview of Equipment Maintenance

order number	Maintenan ce time	Main contents of maintenance	unit running time
1	2005.6	Change the first nozzle	2692(2621, 71)
2	2006.11	Replace No.3 tile, 10 transition sections, 10 flame tubes, turbine first stage nozzle, etc.	9818(9596, 222)

3	2008.5	The first-stage nozzle was replaced, along with the turbines first, second, and third-stage blades, as well as the first, second, third, and fourth bearings. Additionally, 10 transition sections and 10 flame tubes were replaced. The generator rotor was sent back to Nanjing Auto Works for dynamic balancing.	16051 (15661, 390)
4	2010.10	oil to gas conversion	17810