QWISE-FM-SBJSGC-2019-MS Company Standard

Hunan WISE New Material Technology Co., Ltd.

Powder sub-factory Powder product production process equipment safety technical regulations

Molybdenum wire carbonization furnace safety technical regulations

Approved by: Zhaohui LIU Prepared by: Liyun Yun Xing Wang
Checked by Technical Dept: Yizhong Zhang and Yongshen Gong
Checked by Sub-Factory: Zhengchen Xu and Zhengdao Xiao
August 1, 2019 Release August 1, 2019 Effective

Hunan WISE New Material Technology Co., Ltd. Release

QWISE-FM-SBJSGC-2019-MS Company Standard

Hunan WISE New Material Technology Co., Ltd.

Powder sub-factory

production process equipment safety technical regulations

Molybdenum wire carbonization furnace safety technical regulations

- 1. Wear overalls, work shoes, gloves, and dust masks before operation.
- 2. Open the furnace:
- 2.1 Before opening the furnace, first open the exhaust, check the sealing of the furnace door and the furnace body, check whether the push boat system, solenoid valve, cooling system, temperature control instrument, etc. are normal, and enter the two empty boats to the one two belt of high temperature zone for testing.
- 2.2 Close the furnace door, after sending hydrogen for a period of time, use the test tube to take the gas to make the blasting test. After determining that the air in the furnace is exhausted, first turn on the cooling water, then ignite the two outlets of the hydrogen, adjust the hydrogen flow appropriately, and check the gas tightness again. Sex, seal the leak with refractory mud;
- 2.3 Inform the duty electrician to send electricity to heat up. After the power is sent, the temperature is raised step by step. The current and voltage cannot be adjusted if the level is not skipped or the time is not enough. After the oven has been opened for a period of time, the bottom drain valve must be opened to remove the moisture in the furnace;
- 2.4 During the oven process, it is necessary to check whether the instrumentation, cooling water, hydrogen flow, etc. are normal;
- 2.5 When measuring the temperature of the furnace with an optical pyrometer, the distance from the furnace door should be more than 0.5 meters to prevent the stove from injuring people;
- 2.6 After reaching the process temperature, the boat will be pushed. The first time, three boats can be pushed, and then the boat is normally pushed and unloaded according to the process.
- 3. Under normal circumstances, the furnace is shut down: after the boat passes through the high temperature zone, the power is cooled down by the belt. After the boat is finished, the boat is stopped. After the furnace temperature drops to room temperature, the hydrogen and cooling water are stopped.
- 4. Shut down under abnormal conditions:
- 4.1 Furnace tube fracture subsidence: immediately power off and cool down, the furnace in the

furnace is cooled off and discharged, then the furnace door is closed, the hydrogen outlet of the burner is blocked with wet asbestos, the hydrogen valve is closed, and the cooling water is stopped after the furnace temperature drops to room temperature;

- 4.2 Two-band molybdenum wire fuse: After notifying the electrician to confirm, pull down the electric gate, continue to enter the empty boat, and discharge the material in the furnace and then unload it. The uncarbonized material is treated separately. After the boat is finished, close the furnace door, block the hydrogen outlet of the burner with wet as bestos, close the hydrogen valve, and stop the cooling water after the furnace temperature drops to room temperature;
- 4.3 Leakage at the end of the furnace: Immediately close the corresponding cooling water inlet valve, and push the empty boat according to the process. After the boat passes the high temperature zone, the water is cooled down by the belt. After the boat is finished, stop pushing the boat, close the furnace door, and adjust the hydrogen gas appropriately. Stop the hydrogen and cooling water after the furnace temperature drops to room temperature;
- 4.4 Furnace head leakage:close the furnace head cooling water inlet valve,continue to push the boat according to the process.
- 5. It is necessary to ignite before opening the furnace door. It is forbidden to open the furnace doors at both ends at the same time, and it is not allowed to operate the furnace door.
- 6. In the process of production, a sudden stop of hydrogen must be immediately shut down the hydrogen valve, close the furnace door, stop pushing and unloading, and block the hydrogen outlet of the burner with wet asbestos.
- 7. When the hydrogen supply of the power plant is normal and the Roots blower of the hydrogen purification station is stopped, the hydrogen straight-through valve of the furnace should be opened immediately to continue normal production. Immediately after the Roots blower is operating normally, close the straight-through valve and adjust the hydrogen flow to the process range. The hydrogen valve should be closed when hydrogen is not required.
- 9. Every class should be cleaned of equipment and on-site hygiene, kept clean and tidy, and tools, materials, etc. should be placed according to regulations.

Approved by: Zhaohui LIU Prepared by: Liyun Yun Xing Wang
Checked by Technical Dept: Yizhong Zhang and Yongshen Gong
Checked by Sub-Factory: Zhengchen Xu and Zhengdao Xiao
August 1, 2019 Release August 1, 2019 Effective

Hunan WISE New Material Technology Co., Ltd. Release