**INPUT DATA FOR AERODYNAMIC HEAT CALCULATIONS**

**FOR REGENERATIVE AIR HEATER**

**Power station**

**Place**

**Date**

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Parameter** | **Data** | **Remarks** |
|  |  |  |  |
| 1. | Boiler type |  |  |
| 2. | Type of regenerative air heater (RAH) |  |  |
| 3. | Expected (planned) time of replacement |  |  |
| 4. | Replacement scope (quantity of RAH) |  |  |
| 5. | Diameter of RAH rotor, mm |  |  |
| 6. | The height of hot-end heat exchange elements, m |  |  |
| 7. | The height of cold-end heat exchange elements, m |  |  |
| 8. | Hot-end heating surface, m2 |  |  |
| 9. | Cold-end heating surface, m2 |  |  |
| 10. | Fuel type |  |  |
| 11. | Fuel consumption, kg/sec |  |  |
| 12. | Fuel caloricity |  |  |
| 13. | Fuel occurrence |  |  |
| 13. | Gas temperature at RAH inlet, °С |  |  |
| 14. | Air temperature at RAH inlet, °С |  |  |
| 15. | Gas temperature at RAH outlet, °С |  |  |
| 16. | Air temperature at RAH outlet,°С |  |  |
| 17. | RAH resistance along the gas side, , mmwc |  |  |
| 18. | RAH resistance along the air side, , mmwc |  |  |
| 19. | Steam capacity, ton/hour |  |  |
| 20. | Air inflow into the furnace |  |  |
| 21. | Air inflow into RAH |  |  |
| 22. | Air inflow in coal-preparation system |  |  |
| 23. | Air surplus coefficient at the furnace outlet |  |  |
| 24 | Air surplus coefficient before RAH α'RAH |  |  |
| 25 | Air surplus coefficient behind RAH α''RAH |  |  |

**Position, full name, signature (stamp)**

**INPUT DATA FOR MORE CAREFUL CALCULATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Parameter** | **Data** | **Remarks** |
| 1 | Elementary fuel composition for last year |  |  |
| 2 | Limitations on resistance (gas), mmwc |  |  |
| 3 | |  | | --- | |  |   Limitations on resistance (air), mmwc |  |  |
| 4 | Limitations on flue-gas temperature, °С |  |  |
| 5 | Expected resistance result (gas), mmwc |  |  |
| 6 | Expected resistance result (air), mmwc |  |  |
| 7 | Expected flue-gas temperature result, °С |  |  |

**Position, full name, signature (stamp)**

In order to carry out adequate calculations it is necessary to provide us with the up-to-date data. Each parameter has a considerable impact on the calculation result.

**INPUT DATA FOR CALCULATION OF ECONOMIC EFFECT**

**Power station \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Place \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**орильск

**Boiler unit \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**RAH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |  |
| --- | --- | --- | --- |
| **№** | **Parameter** | **Data** | |
| **Indication** | **Value** |
| 1 | Average annual fuel consumption of the boiler unit | tons of equivalent fuel /per year |  |
| 2 | The actual efficiency "gross weight" of the boiler,, η | % |  |
| 3 | Leakage including outgoing gases, q2 | % |  |
| 4 | The price of a ton of fuel equivalent | $/ tons of equivalent fuel |  |
| 5 | The predicted change in the price of a ton of fuel equivalent in the period 2018-2020. | % |  |

**Position, full name, signature (stamp)**