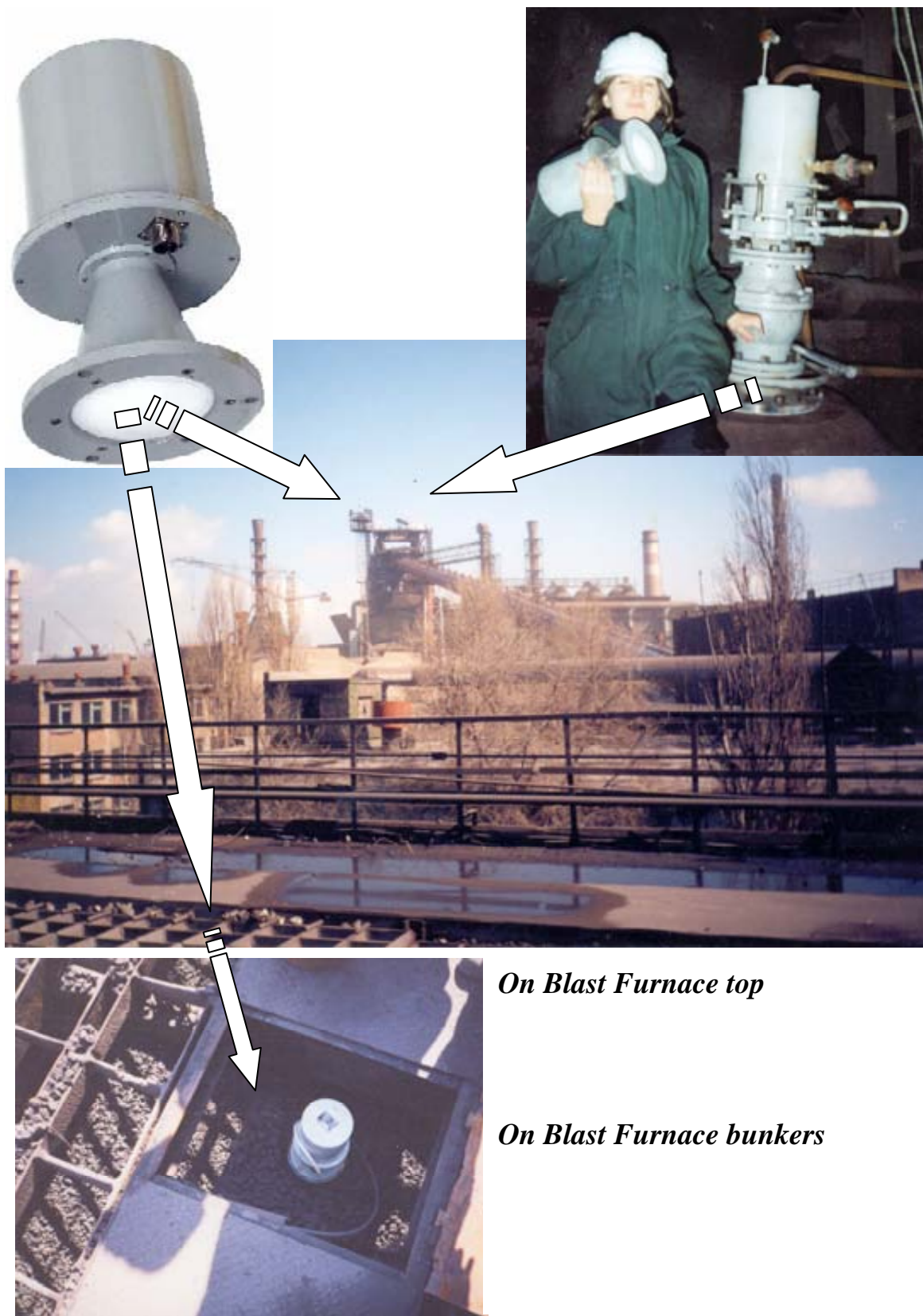


THE RADAR SYSTEM FOR MONITORING OF PROFILE CHARGE SURFACE IN BLAST FURNACE

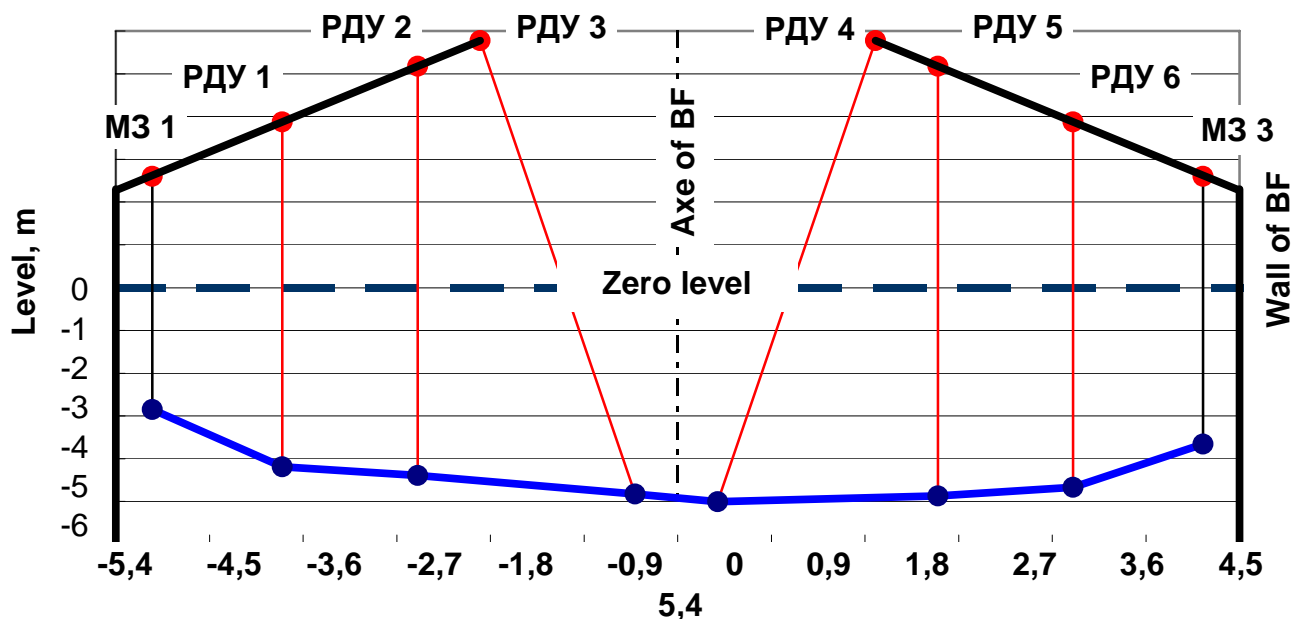


It is introduced at metallurgical plant «Криворожсталь» on a blast furnace with working volume 5000 m³ in 2003 for the first time in Ukraine.

Principle of operation: On a furnace top 20 small-sized radars РДУ-X2. The radars are controlling the distance to surface of charge materials in determine zones. The are installed in special thermostats under apertures in a shaft top. The output signals or radars are transmitting in digit form through RS-485 interface to central control post in automated control system of BF. Treatment of this information in the automated control information system of BF allows:

- To represent the full form of a surface of charge materials on the technological monitor in central control post;
- To control of a furnace load;
- To support the desirable surface form;
- To warn district non-uniformity surface.

Profile of charge surface on top of BF with working volume 5000 m³ (example)



The further development:

- Creation of the automated charging controls of a blast furnace;
- Creation of the automated control system by stocks row materials in storage bunkers for row materials.