



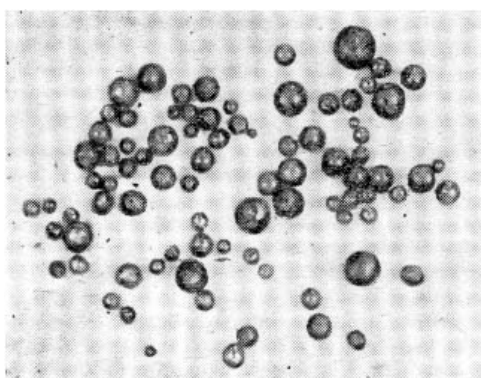
## Technology for producing ferrosilicium from ash waste of thermal power stations

Granulated ferrosilicium is received by restoring part of oxides from slags obtained as a result of coal burning, separation and recovery of a restored metal component. The restoration process is conducted in the boiler units of thermal power stations with liquid slag removal.

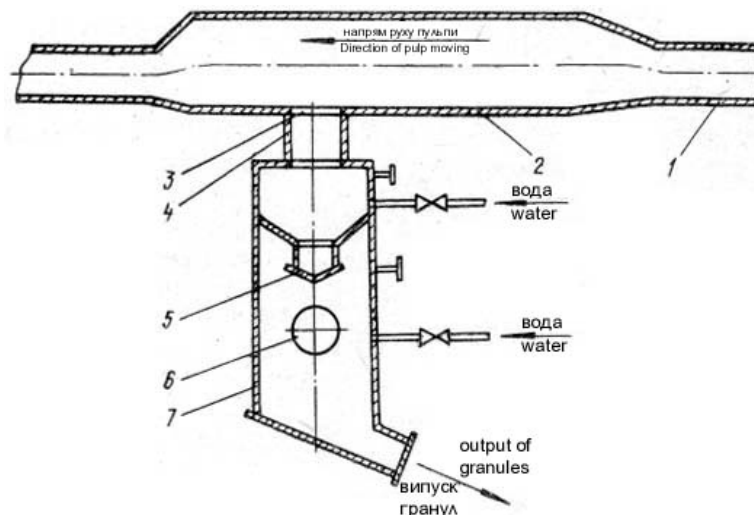
The technology has been mastered to obtain ferrosilicium granules with a silicon content from 14 up to 25 percent, the rest being iron with inclusions not greater than: carbon - 1.5, sulphur - 0.3, phosphorus - 0.8, aluminium - 0.3, vanadium - 0.4, titanium - 0.6, nickel - 0.3 percent.

The dispersivity of separated granules of the following fractional composition.

The density of material is  $6.3 - 6.9 \text{ g/sm}^3$ , the bulk weight being  $4-4.2 \text{ g/sm}^3$ . The technology can be practically used at all thermal power stations operating under various slag removal conditions on anthracites, bituminous lean, baking and cooking coals, and also on a number of hydrogenous coals.



View of metal granules



Scheme of catcher for removing of metal granules from slag in system of water and ash removing:

1 - ash and slag conductor; 2 - diffuser; 3 - window of catcher; 4 - catcher; 5 - cone; 6 - watch window; 7 - storage device for granules.

The average output of metal granules under usual conditions of furnace process (without thermochemical action on the slag) is 03 - 2 percent of the slag weight.

**Please forward your proposals and suggestions to:**

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