

Method of forming the working area of the outer dump on a weak base includes the delivery and tiered storage of overburden rocks with dump steps. On the earth's surface, a tiered working area of the dump is formed in the form of triangular working platforms, after which similar platforms of each subsequent higher tier are formed, which are transformed into diagonal working platforms, while the dump tiers are formed with different heights, which are determined by the coefficient of the safety margin and the angle of orientation of the diagonal working platforms in the plan relative to the main direction of the front of the dump works on each tier is formed, which is determined by the formula:

$$\alpha_i \leq \arctg \left[\frac{0,5 \cdot \Psi_{o,i}}{\sum_{j=1}^{i+1} \{h_j \cdot (\operatorname{ctg}(\varphi_{\delta,(i+1)}) - \operatorname{ctg}(\beta_j))\} - \sum_{j=1}^{i-1} \{h_{n,j}\}} \right], \text{ град.}$$

where

h_j is the height of the j^{th} dump tier, m;

β_j - slope angle of the j^{th} dump tier, deg.;

$\Psi_{o,i}$ - width of the base of the triangular working platform in the plan, located on the i^{th} dump tier, m;

$\varphi_{\delta,(i+1)}$ - maximum permissible angle of stability of the $(i+1)^{\text{th}}$ tier side of the dump, deg.;

wherein the overburden is stored in the working area of the dump with dump steps, which are located on the sides of the triangular and diagonal working platforms, which are moved along these sides and form a working area on each $(i)^{\text{th}}$ tier of the dump with the resulting slope angle of the $(i)^{\text{th}}$ tier side of the dump, equal to:

$$\varphi_{p,i} = \arctg \left[\frac{\sum_{j=1}^{i+1} \{h_j \cdot \operatorname{ctg}(\varphi_{\delta,(i+1)}) - \operatorname{ctg}(\beta_{\delta,j})\} + \sum_{j=1}^{i-1} \left\{ \frac{\Psi_{p,n,j}}{\sin(\alpha_j)} \right\}}{\sum_{j=1}^{i+1} \{h_j\}} \right], \text{ град}$$

provided that for $j=1 \dots i$:

$\varphi_{p,i} \leq \varphi_{\delta,j}$, deg.,

and for $j>1$:

$\alpha_j \geq \alpha_{(j-1)}$, deg.,

where

$\Psi_{p,\pi,j}$ is a standard width of the j^{th} diagonal working platform, which is located on the corresponding j^{th} tier of the dump, m;

and operational control of the stability of the working area of the dump is carried out by correcting the orientation angle of the diagonal working platforms, thereby changing the resulting slope angle of the working edge of the dump.