

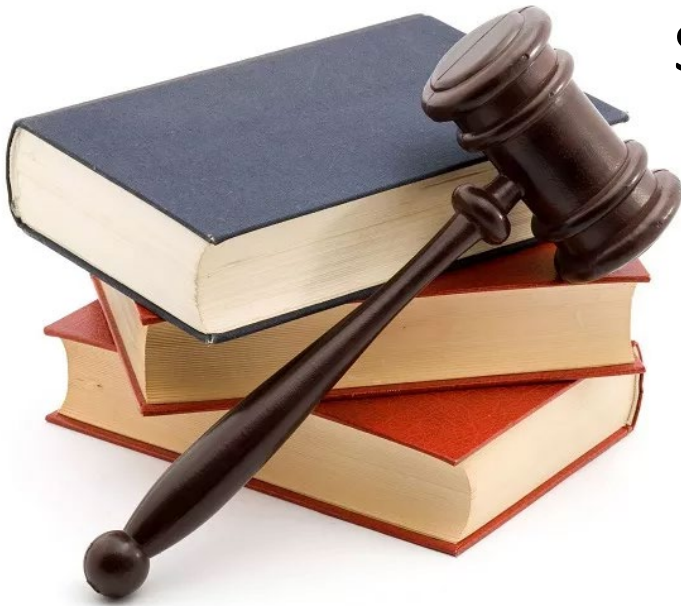
TMFs management in Kazakhstan

Astana, November 7, 2018

The legal framework

The RK Law on Civil Protection

regulates public relations in the sphere of industrial safety



Secondary legal acts (regulations):

26 Industrial Safety Rules for industries and hazardous production sites

Regulations

Rules for Ensuring Industrial Safety of Hazardous Production Sites

Rules for Ensuring Industrial Safety of Hazardous Production Sites, Engaged into Mining and Exploration Works

Rules for Ensuring Industrial Safety of Hazardous Production Sites of Coal Mines

Rules for Ensuring Industrial Safety of Hazardous Production Sites, Engaged into Processing of Solid Mineral Resources

Rules for Ensuring Industrial Safety of Tailings and Sludge Management Facilities of Hazardous Production Sites



Actions for improvement of the national legislation

The roundtable session with participation of specialists in the sphere of industrial safety of mining industries

Objectives: to ascertain the general status of laws and regulations in the sphere of industrial safety, their upgrade accounting for modern science and technologies, to eliminate collisions between applicable Rules at the territory of the Republic of Kazakhstan and Technical Regulations of the Customs Union, to eliminate duplication of some issues falling under other spheres of legal regulation and legislation in the sphere of industrial safety.

Actions for improvement of the national legislation

- Staged review of laws and regulations in the sphere of industrial safety
- Establishment of a working group for drafting proposals on amendments into laws and regulations

The incident at Talovskiy TMF in 2016

- The ore dressing factory of Ridderskiy MPP of "Kaz Zinc" JSC
- an elevated release of turbid water into the water intake chute of pumping unit # 4 was detected, with water outflow into the Filipovka river.

Measures taken

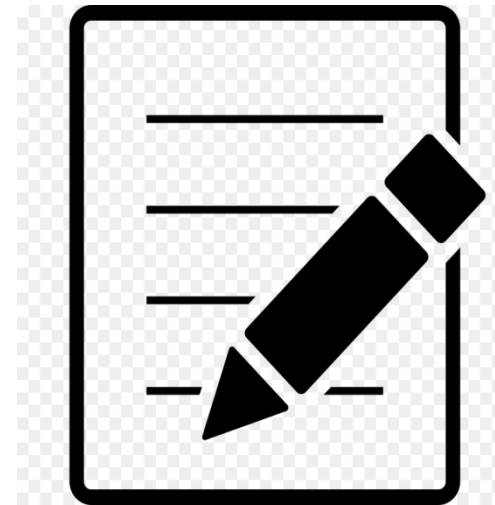
- A commission was established to investigate causes
- the source of additional water inflow was identified - water inflow into water collector of VK1-VK9 wells (operational from 1978 to 2016).
- measures were applied to mitigate the incident, equipment of the ore dressing factory was stopped for scheduled preventive repairs, monitoring posts were set up at VK10 water intake well, at the water intake channel of the water pumping station # 4, with involvement of the Ridderskiy MPP survey team to monitor the depression funnel conditions at the Talovskiy TMF.
- the incident mitigation management unit was established

Mitigation of effects of the incident

- an action plan was developed for environmental rehabilitation and mitigation of effects of the spill from the TMF;
- mechanised collection of spills from the contaminated area;
- hourly monitoring of water levels in Talovskiy TMF (using the metering scale, installed in VK9 well);
- monitoring water parameters in Talovskiy TMF, monitoring chemical composition of water in Filipovka and Talovka rivers;
- daily metering of water volumes in outflows from VK1-VK9 collector; a technical solution was introduced to prevent entry of the coarse fraction into water intake settling sump of pumping station # 4;
- a pontoon with 4NP type vertical pump was installed in the channel zone on the reverse side of the intake channel dam, from the road side;
- daily registration of volumes of cleaned waste materials;
- a permanent duty post of one additional manager (engineer) was ensured at pumping station # 4 to manage incident mitigation works;
- revision of power supply lines and cables at the site nearby pumping station # 4 (idle ones were removed);
- a manual was developed for indirect assessment of reliability of collectors; a technical council was conducted to discuss construction design of water pumping station # 4/2;
- acceptance of the territory manually cleaned from sludge spills along streams to the Filipovka river with issuance of the relevant acceptance protocol; planning a road for maintenance of the collector of water intake well # 10.

Lessons learnt

- Introduction of soft provisions of the Convention on Industrial Accidents
- Establishment of a working group to ensure safety of TMFs and water management
- Development of proposals on comprehensive management of TMFs and prevention of potential industrial accidents
- Development of cooperation with neighboring countries for prevention of industrial accidents in transboundary context





Thank you for your attention!