

Remarks and suggestions
for the agenda and the draft of the public hearings resolution
in association with the projects «The Second phase of activities for liquidation of environmental
negative impacts caused by the Dzhidinsky tungsten-molybdenum mine (DTMM)
in the Zakamensky district of the Buryat Republic»
destined for the objects of major construction works
(Based on the discussion results at a working meeting in the Ministry for Natural Resources, the
Buryat Republic, 25/12/14
And the project «The cleaning plant on processing
of the technological wastes of the Dzhidinsky tungsten-molybdenum mill»)

Remarks

1. Until recently negative health impacts experienced by residents of Zakamensk were bound to the DTMM wastes which at various times and in different ways polluted the city territory, and led to the formation of an environmental disaster area on its larger part (because of the heavy metals concentrations in soils).

The I. KREMENTSKY report, 2011.

In 2012 there became accessible the data on the “Superfund” projects in the USA which provided for solutions of similar problems based on the use of biomarkers – heavy metal contents in biomedica of the population (hair, urine, blood). We applied that experience in explorations conducted by the NGO «BROB» in 2013-2014, and received negative results, probably because of the heavy metals being found in DTMM tailings and dust in 90% cases in their insoluble form. And heavy metal entering the human body with food is limited and should be studied in specially designed research.

Recent literature and poll results data (in particular about the “stone” lungs of horses and miners at Kholtozon mine) make it possible to conclude that dust by itself without heavy metals significant impact can explain the revealed level and nature of diseases spread among the residents.

Therefore estimations of Geological Institute experts (by O.Smirnova) about uncontrolled hazardous dusting from the drained tailings make dusting a priority issue for study, and proposals on moving the tailings into the Dzhida river valley (Moskvitin, Kremenetsky, 2011 – 2012) seem to be on the top of the agenda for discussion.

The funds for transferring/pumping the sands by a pipeline can be taken from the funds of phase 11 aimed at neutralization of adit waters of the Kholtozon mine (in my opinion, geobarriers will be of no use if there are no people/organizations to maintain them, and it is better to plan heavy metal extraction from the adit/mine waters instead).

To estimate risks of atmospheric (wind-borne) transferring/spread of the drained tailings (Barun - and Zun – Narvnsky) additional studies are required as part of the sanitary hygienic monitoring which is planned for 2015.

Without moving the tailings all the funds destined for liquidation of accumulated environmental damage from the DTMM will be misused either in accordance with the criteria of Federal Target Program “Lake Baikal Protection 2002”, or with the Federal Target Program “Liquidation of Accumulated environmental damage in the Russian Federation by 2020”.

2. The advantage of major construction works, in particular the creation of purification facilities at the western and eastern adits and construction of geochemical barriers for cleaning the waters of the river Modonkul and underspoil waters of the river Gudzhirka, is not clear.

It is necessary to address an issue with maintenance of these objects after they are built and devolution of the objects (to whom?! what agency?) for a practically infinite term/lifetime. The city administration lacks funds for maintaining the objects, while the license holder can go bankrupt any time as well as the DTMM once did. There is no stimulus to do this for the local authorities either. In this case the pollution of surface waters will recur, while a chance to receive budget funds to clean them will not happen again. Therefore it is necessary to analyse alternative technological solutions relying on the experience in Russia and the world.

3. Removal of the building and old mill facilities of the DTMM by blast works will result in a new wave of severe dusting that will make a serious impact on people's health in Zakamensk. It is useful to study experience of removal of similar manufacturing in Svirsk (Irkutsk region) in 2013.

Suggestions

1. It is advisable to create a working group for analyzing urgency, expediency of the tailings transference/relocation and feasibility study of the tailings relocation onto a new place which will be outside the area of its negative impact on the Zakamensk territory (in a valley of the Dzhida river).

Among the working group members there should be experts of OAO "Zakamensk", Buryat Geological Center, local people and experts from environmental NGOs in Buryatia who will work on the project and also work as our subcontractors in 2015.

Funding for those operations can be taken from Phase 2 of the activities aimed at remediation of environmental impacts caused by the DTMM in the Zakamensky District of the Buryat Republic which is presently assigned for contingencies.

2. In March, 2015, it is advisable to conduct geochemical survey of the snow in Zakamensk using the methodology similar to the survey of 2011 to obtain comparable results and make assessment of dust impact from the tailings in the present days (after liquidation of old tailings). The research should be conducted as part of the sanitary hygienic monitoring operations.

3. Elaborating on the sanitary hygienic monitoring program, it is advisable to consider the results of recent studies (performed after 2011) and best practices on solving similar issues in Russia and the world.

Appendices

1. The report of Kremenekii, 2011.
2. O. Smirnova's article
3. I. Moskvitin's inquiry
4. The data from literature on hazardous impacts of fine dust
5. Poll data from inhabitants of Zakamensk about nature of diseases experienced by mine workers on Holtoson