

SOME COMMENTS ON THE DEVELOPMENT OF A MORE UNIFORM AND MEANINGFUL CLASSIFICATION OF URANIUM RESOURCES

(Summary)

V.P. ZHELNOV
KATEP, Almaty, Kazakhstan



XA9847831

Until now, CIS countries still use the classification of reserves for metallic minerals which were used in the former USSR. In Russia, as well as in Kazakhstan, the Ministries of Geology are preparing a new classification which differ slightly from the present one. It is understood that with the exception the one used in the former USSR, other classifications of reserves are not oppose to the one accepted by IAEA.

The classification which is being used in Kazakhstan and Russia, and perhaps also in Uzbekistan, the category of reserves and resources for deposits of sandstone types which are being exploited by in situ leaching method are not comparable to the deposits of hydrothermal origin which are being mined by conventional method. Therefore, in the proposed comparative table of resources classification (Table I) it seems advisable to shift the scale of resources categories and reserves for deposits that can be produced by ISL method one column to the left.

TABLE I. URANIUM RESOURCES CLASSIFICATION

		CATEGORIES			
IAEA		RAR		EAR-I	EAR-II
CIS	Traditional	B	C1	C2	P1
	ISL	C1	C2	P1	P2

Foreign experts who are engaged in extraction of uranium by ISL methods, in re-evaluating the reserves of Kazakhstan sandstone deposits, noted the need to differentiate the reserves for different types of deposits.

For CIS countries, particularly in recent years, reliable economical evaluation is difficult. It is caused by production slumps in most commodities and economical instability, which lead to unrestrained increase of prices for materials and fossil fuel. Unpredictable depreciation of the local currency resulted in a marked and uncontrolled slump of exchange value against the dollar. Cost divisions of resources for the groups less than US\$40, US\$40-\$80, US\$80-\$130 and US\$130-\$250 are not related to the current world prices for uranium in the spot market. Under the present spot prices, in Kazakhstan, only extraction of uranium by ISL method is economically viable.

Considering the two dimensional table of resources used in the Red Book Questionnaire for 1995, one can see that the terms used are not sufficiently informative. One should think that the names of the categories should have a more distinctive meaning. The definition of Reasonably Assured Resources (RAR) is telling about the matter of this category. For the characteristics of Estimated Additional Resources categories I and II (EAR-I and EAR-II) they become meaningful only after the detailed explanation. The most meaningful names of categories are those used in Canada, Germany, the U.S.A.

In CIS countries, the classifications of resources and reserves is common for all metallic minerals. For the uranium reserves in the former USSR there was an instruction for entering additions

into the generally accepted classes, but without changing the nature and names of the categories. New and unified uranium resources classification will differ more significantly from the old one (in CIS countries). One should note that in CIS countries the resources of all minerals, including uranium, are subject to formal approval by the State Commission on Reserves.

In CIS countries there are two conceptions: reserves and resources. Each of these groups has categories. This results in a confusion of terminology application. In the rest of the world, perhaps excluding France, there is only one term: "Resources" with common scale of categories. It seems the last approach is more logical and rational. In conclusion we are of the opinion that it is necessary to finish the process of world uranium resources unification as soon as possible.