Domestic Uranium Resources and Their Availability

In 2001, USA uranium production was about four million pounds and declining. This amounts to less than 10% of domestic demand and only 2.5% of world demand. The USEIA estimates potential domestic uranium resources of almost 1.5 billion pounds U3O8 and sufficient, in theory, for another 20 to 30 year’s operation for existing domestic reactors. Few resources, if any, have been added to the USA portfolio in the past two decades due to rapidly declining and, recently, historically low prices. Indeed, at the price in late 2000, the USA had no uranium resources defined as reserves. An upgrading of resources to reserves and the subsequent influx of capital investment necessary to bring them into production will not occur without substantial increases in price and market stability. Additionally, some resources will be difficult to upgrade and produce due to environmental and political concerns. Other factors affecting the extraction process include: 1) a limited and declining cadre of experienced miners and extraction companies, 2) a large number of relatively small deposits that will require consolidation to create viable mining units, and 3) the redundant aspect of re-drilling prospects and deposits due to missing data from earlier work that has either been lost or discarded.

Modern technology such as in-situ leaching offers potential for accelerating production, increasing the resource base, and decreasing the impact of production. That is, provided that the regulatory regimes involved do not continue on the current path toward increasingly arbitrary and expensive controls.