

by the USA and the USSR outside their nuclear weapon test sites, as from 31 March 1976, the date valid also for the TTBT.

For many years, peaceful nuclear explosions (PNEs) had been seen as potentially valuable activities for a variety of purposes. In the United States, the so-called Plowshare Programme set out to explore possible uses of PNEs for digging canals or for other industrial ends, such as gas stimulation or oil recovery from otherwise uneconomic deposits. However, progress was slow, given the necessity of systematic tests using both conventional and nuclear explosives, because the need to minimize the risks required careful experimentation. By the mid-1970s, industrial interest in the use of underground nuclear explosions for non-military purposes had waned in the USA, while public concern over possible environmental hazards had increased. These hazards include — in addition to the release of radioactive material — shock wave effects which may occur close to the points of detonation. The programme was terminated in 1977, shortly after the signing of PNET. It can be concluded that PNEs no longer constitute a motivation for the United States to continue explosive testing, unless circumstances were to change in a manner currently unforeseeable.

By comparison, the Soviet Union has pursued an active PNE programme. Its primary interests seem to have focussed on the creation of underground storage facilities, as well as on seismic and geological mapping of Soviet territory. The grandiose Soviet plan for river diversion in Asia, using nuclear explosives, has been stopped, but since Soviet leaders have publicly referred to the economic costs to the USSR resulting from the country's 1985-87 moratorium on nuclear explosions, and since PNEs have been resumed after the expiration of the moratorium, it is reasonable to assume that such activities continue to be considered important in the Soviet Union. It has nevertheless been authoritatively and repeatedly stated that the Soviet Union would be prepared to forgo PNEs if a prohibition on all nuclear explosions were achieved. (The United Kingdom said that it would be prepared to renounce permanently the right to conduct nuclear explosions for peaceful purposes as part of an agreement on