DEVELOPMENT OF DECREASE OF RADIATION RISK MEASURES COMPLEX AT TESTING SITE "AZGIR"

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Geographically the former testing site "Azgir" ("Galit" object) is located in immediate proximity to settlement Azgir, Kurmangazy region, Atyrau oblast.

Operations at the object "Galit" for air holes creation were carried out since 1964 using underground nuclear explosions in the rock-salt massifs with the purpose of their utilization as large capacity storage for multiple purposes.

17 nuclear explosions of all powers were conducted, 9 air holes were created with initial total capacity 1.2 millions cubic meters.

For efficient inspection of radiation situation at the territory of testing site "Azgir" and protection of its objects, in 1996 Azgir research-and-production radio-ecological expedition from INP NNC RK was organized.

Since 1996 to present day operations on collection and systematization of retrospective information about earlier carried out at the proving ground "Azgir" explosions, investigation of radiation situation at the testing site territory, territories adjacent to it and in settlements were realized.

In 2001 "Program for system complex monitoring of Galit object territories (Azgir testing site) and settlements" was devised and submitted to Atyrau regional preservation of the environment

administration. In accordance with the program to present day the operations on inspection of radiation situation at the territory of testing site "Azgir", territories adjacent to it and in settlements are carried out.

In 2005 on the instructions of Preservation of the Environment RK Ministry, following operations were carried out:

- detailed investigation in radiation state of wellhead areas and adjacent to them territories; detailed investigation of basic dose forming nuclides content in soil. The level of testing site and adjacent to it territories artificial radionuclide contamination is not practically exceed background levels;
- an inventory of local radioactive contamination points, which present at A2, A3, A5, A10 sites, was drawn up. It is determined that during conducting of reclamation works it would be necessary to excavate 10-15 m^3 of contaminated soil. This soil would be refer to materials of limited utilization and not to category of radioactive waste. It would allow to use easy and cheap technologies for its utilization;
- estimation of level and character of scrap metal contamination was carried out. Out of all located at the testing site scrap metal (about 100 units), only 4 are contaminated;
- operations on complex estimation of environment quantity were carried out at Azgir and Balkuduk settlements (i.e. settlements located at the zone of maximum potential infection of testing site Azgir).

Results of system complex research allow asserting that the basic negative ecological factor is drinking water quantity at Azgir and Balkuduk settlements. But for all that at the present time radiation situation is normal and depend on natural radiation factors.

We developed a schedule of works on elimination of radioactive contamination at the territory of testing site Azgir, in accordance with that rehabilitation of radionuclide contaminated territories including the burial of radioactive scrap metal was executed.