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Date: 13 February 2008
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Subject: Markerbed Concentrations for undisturbed NUTS scenarios in AP-137

As part of the Waste Isolation Pilot Plant Performance Assessment (WIPP PA), it is necessary to determine if there is any groundwater contamination for undisturbed scenarios (Garner 2003). The screening criterion used is if any of the vectors in Scenario 1 (the undisturbed scenario) results in a release of more than 10^{-7} kg/m^3 of a tracer component through the markerbeds at the Land Withdrawal Boundary (LWB), as measured by the NUTS transport code.

For the runs performed in NUTS as part of Analysis Plan AP-137 (Clayton 2008), none of the 300 vectors tested as part of Scenario 1 had tracer concentrations exceeding the threshold of 10^{-7} kg/m^3. The results are shown by the empty NONUNION sections in the files SCREEN_NUT_SCN_CRA09_R1_S1.OUT, SCREEN_NUT_SCN_CRA09_R1_S2.OUT, and SCREEN_NUT_SCN_CRA09_R1_S3.OUT that are stored in CMS classes LIBCRA09_NUTR1S1, LIBCRA09_NUTR2S1, and LIBCRA09_NUTR3S1, respectively. Consequently, there will be no reportable releases through the markerbeds, and it will not be necessary to compute any concentrations of radionuclides at the LWB.

References

Garner, J. W. (2003) "CRA Marker Bed Concentration." Memo to Records Center. Carlsbad, NM: Sandia National Laboratories. ERMS 532402.

Clayton, D. J. (2008) Analysis Plan for the Performance Assessment for the 2009 Compliance Recertification Application. AP-137. Carlsbad, NM: Sandia National Laboratories.

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