CHESTER
ENGINEERS

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BY FEDERAL EXPRESS

June 4, 2014

Ms. Yolande Norman
Special Projects Branch
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
2 White Flint North, Mail Stop 8 F5
Rockville, MD 20852-2738

Re: Groundwater Flow Model – Data Files
        Materials License No. SUA-1475
        United Nuclear Corporation's Church Rock Tailings Site, Gallup, New Mexico

Dear Ms. Norman:

On behalf of United Nuclear Corporation (UNC), Chester Engineers is submitting electronic copies of the input files for the numerical groundwater flow model (Flow Model) of UNC's Church Rock Mill and Tailings Site and the adjacent down-gradient region northeast of Gallup, New Mexico. The files are submitted for use by the United States Nuclear Regulatory Commission (NRC), per NRC's June 4, 2013, Request for Additional Information (RAI) related to UNC's April 2012 license amendment request.

The data files comprise the two simulations used to prepare the Flow Model report: the model simulation through 2011 and the model simulation through 2026. The data files were created for use by the Groundwater Modeling System software (GMS, version 5, Aquaveo publ.) and therefore do not follow NRC file naming conventions and are not provided in Adobe Portable Document Format (i.e., pdf). A few of the data files are also larger than 50 MB and cannot be segmented into smaller files. This transmittal and a file containing model file notes are provided as pdfs.

The files are transmitted on Optical Storage Media (OSM). The enclosure to this letter is one Digital Versatile Disc (DVD) containing the document components identified below.

Ms. Yolande Norman, NRC
June 4, 2014

Sincerely,

Robert B. Warren, Jr.   James A. Ewart, Ph.D., P.G.
Project Manager   Technical Consultant
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14-6209-SC-142

Enclosure (1 DVD)

cc:
Larry Bush, United Nuclear Corporation (1 DVD)
Roy Blickwedel, General Electric Corporation (2 DVDs)

Questions concerning this submittal may be directed to:

Robert B. Warren, Jr.
Chester Engineers
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Email: rwarren@chesterengineers.com
1315 W. College Ave. Suite 100
State College, PA 16801

Document components contained on OSM#1
Located in the OSM root:
    001 Model File Transmittal 6-4-14.pdf, 143,760 bytes
    002 Model File Notes.pdf, 35,303 bytes

Located in the "orthophoto" folder
    NAIP_NM_west_NAD27_super.prj, 65 bytes
    NAIP_NM_west_NAD27_super_lores.jgw, 151 bytes
    NAIP_NM_west_NAD27_super_lores, 23,051,356 bytes

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Located in the "sim2011" folder

    3D_river3_115_201111.ccf, 674,671,256 bytes
    3D_river3_115_201111.hed, 155,323,560 bytes
    3D_river3_115_201111.out, 572,224,627 bytes
    3D_river3_115_201111._b, 0 bytes
    3D_river3_115_201111._nm, 4,718,272 bytes
    3D_river3_115_201111._os, 6,231,680 bytes
    3D_river3_115_201111._r, 3,293,888 bytes
    3D_river3_115_201111._w, 3,293,888 bytes
    3D_river3_115_201111._ws, 4,718,272 bytes
    3D_river3_115_201111._ww, 4,718,272 bytes
    mod_115_2011.2dg, 2,244 bytes
    mod_115_2011.asp, 16 bytes
    mod_115_2011.ba6, 760,002 bytes
    mod_115_2011.dis, 1,377,845 bytes
    mod_115_2011.drn, 63,477 bytes
    mod_115_2011.drob, 308,152 bytes
    mod_115_2011.gpr, 4,489 bytes
    mod_115_2011.hob, 19,132,285 bytes
    mod_115_2011.ini, 79,341 bytes
    mod_115_2011.lpf, 2,440,654 bytes
    mod_115_2011.map, 106,477 bytes
    mod_115_2011.mapatt, 450,151 bytes
    mod_115_2011.mat, 557 bytes
    mod_115_2011.mfn, 744 bytes
    mod_115_2011.mfr, 105 bytes
    mod_115_2011.mfs, 315,027 bytes
    mod_115_2011.mst, 303,849 bytes
    mod_115_2011.obs, 15 bytes
    mod_115_2011.oc, 34,834 bytes
    mod_115_2011.pcg, 35 bytes
    mod_115_2011.ptk, 15,584 bytes
    mod_115_2011.rch, 3,527,515 bytes
    mod_115_2011.riv, 269,797 bytes
    mod_115_2011.rvob, 969,692 bytes
    mod_115_2011.wel, 351,192 bytes
    mod_115_20112g.dat, 405,908 bytes
    mod_115_20113g.dat, 683,586 bytes

Located in the "sim2026" folder
mod_115_2026.2dg, 27,792 bytes
mod_115_2026.asp, 16 bytes
mod_115_2026.ba6, 759,987 bytes
mod_115_2026.dis, 1,378,821 bytes
mod_115_2026.drn, 93,833 bytes
mod_115_2026.drob, 419,599 bytes
mod_115_2026.gpr, 4,597 bytes
mod_115_2026.hob, 25,651,894 bytes
mod_115_2026.ini, 79,596 bytes
mod_115_2026.lpf, 2,440,654 bytes
mod_115_2026.map, 106,874 bytes
mod_115_2026.mapatt, 460,666 bytes
mod_115_2026.mat, 557 bytes
mod_115_2026.mfn, 744 bytes
mod_115_2026.mfr, 105 bytes
mod_115_2026.mfs, 315,027 bytes
mod_115_2026.mst, 303,849 bytes
mod_115_2026.obs, 15 bytes
mod_115_2026.oc, 47,461 bytes
mod_115_2026.pcg, 35 bytes
mod_115_2026.ptk, 11,246 bytes
mod_115_2026.rch, 3,527,942 bytes
mod_115_2026.riv, 270,163 bytes
mod_115_2026.rvob, 1,306,778 bytes
mod_115_2026.wel, 537,585 bytes
mod_115_20262g.dat, 684,905 bytes
mod_115_20263g.dat, 683,586 bytes
mod_115_future.ccf, 916,285,424 bytes
mod_115_future.dwg, 140,563 bytes
mod_115_future.hed, 210,948,240 bytes
mod_115_future.out, 609,886,958 bytes
mod_115_future._b, 0 bytes
mod_115_future._nmv, 6,316,540 bytes
mod_115_future._os, 8,342,600 bytes
mod_115_future._r, 4,409,660 bytes
mod_115_future._w, 4,409,660 bytes
mod_115_future._ws, 6,316,540 bytes
mod_115_future._ww, 6,316,540 bytes
mod_115_future_z3_sat.ggd, 61,355 bytes

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