GROUNDWATER MONITORING SYSTEM CERTIFICATION
AES INDIANA EAGLE VALLEY GENERATING STATION ASH POND SYSTEM

ATC Group Services LLC ("Consultant") has been retained by AES Indiana to review groundwater monitoring system design and construction in order to assess whether the above-referenced coal combustion residuals ("CCR") impoundments meet the groundwater monitoring system design and construction requirements set out in 40 C.F.R. § 257.91. Presented below are the project background, limitations, and certification.

1.0 BACKGROUND

Pursuant to 40 C.F.R. § 257.90(b), owners and operators of new and existing CCR landfills, and new and existing CCR surface impoundments, and all lateral expansions of a CCR unit must install a groundwater monitoring system. Under 40 C.F.R. § 257.91, this monitoring system must be installed relying on site-specific technical information, that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that accurately represent the quality of background groundwater that has not been affected by leakage from a CCR unit and accurately represent the quality of groundwater passing the waste boundary of the CCR unit.

Pursuant to 40 CFR § 257.91(d), the owner installed a multiunit groundwater monitoring system for Ponds A, B, and C instead of constructing separate groundwater monitoring systems. The original certified multiunit groundwater monitoring system consisted of three background wells and seventeen downgradient monitoring wells, installed at locations that were believed to represent the quality of background groundwater and the quality of groundwater passing the waste boundary. Nested groundwater monitoring wells were installed at three background locations between the boundary of the multiunit and the facilities discharge canal and at five downgradient locations at the boundary of the waste. The groundwater monitoring wells are installed in unconsolidated deposits overlying bedrock. However, based on site-specific data gathered since installation (including data variability caused by the proximity of the background wells to the multiunit boundary and the discharge canal), the existing background wells (MW-4S, MW-4I, MW-4D, MW-8S, MW-9S, MW-9I, and MW-9D) have been replaced with a new background well nest (MW-13S, MW-13I, and MW-13D). This new well nest is located in the same hydrostratigraphic unit approximately 1,400 feet east of the multiunit boundary in an area of the site unaffected by a CCR unit.

Pursuant to 40 C.F.R. § 257.91(f), the owner or operator must obtain a certification from a qualified professional engineer stating that the groundwater monitoring system has been designed and constructed to meet the requirements of 40 C.F.R. § 257.91, including the performance standards specified in 40 C.F.R. § 257.91(a), based on the site-specific information specified in 40 C.F.R. § 257.91(b). If the groundwater monitoring system includes the minimum number of monitoring wells specified in 40 C.F.R. § 257.91(c)(1), the certification must document the basis supporting this determination.

In support of Consultant's assessment, Consultant completed an evaluation of the groundwater monitoring system for the above-referenced CCR units and determined that sufficient information is available to make the certification required under 40 C.F.R. § 257.91(f) as it relates to the system including the new background wells.

2.0 LIMITATIONS

The signature of Consultant's authorized representative on this document represents that to the best of Consultant's knowledge, information, and belief in the exercise of its professional judgment, it is Consultant's professional opinion that the aforementioned information is accurate as of the date of such signature. Any opinion or decisions by Consultant are made on the basis of Consultant's experience, qualifications, and professional judgment and are not to be construed as warranties or guarantees. In addition, opinions relating to environmental, geologic, and geotechnical conditions or other estimates are based on available data, and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

3.0 CERTIFICATION

I, Martin Brungard, being a Registered Professional Engineer, in accordance with the Indiana Professional Engineer's Registration, do hereby certify to the best of my knowledge, information, and belief, that the groundwater monitoring system for the CCR unit that is the subject of this certification, dated December 17, 2021 , has been designed and constructed to meet the requirements of 40 C.F.R. § 257.91, and that this certification is true and correct and has been prepared in accordance with generally accepted good engineering practices.

SIGNATURE _____ DATE 12/17/21

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