

**GROUNDWATER MONITORING SYSTEM CERTIFICATION  
IPL PETERSBURG GENERATING STATION  
RWS III LANDFILL**

ATC Group Services LLC ("Consultant") has been retained by Indianapolis Power & Light Company (IPL). to review groundwater monitoring system design and construction in order to assess whether the above-referenced coal combustion residuals (CCR) landfill meets the groundwater monitoring system design and construction requirements set out in 40 CFR § 257.91. Presented below are the project background, limitations, and certification.

**1.0 BACKGROUND**

Pursuant to 40 CFR § 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. 40 CFR § 257.91 requires owners and operators of a CCR unit to install a groundwater monitoring system that, relying on site-specific technical information, 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 the CCR unit and accurately represent the quality of groundwater passing the waste boundary of the CCR unit.

Pursuant to 40 CFR § 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 CFR § 257.91, including the performance standards specified in 40 CFR § 257.91(a), based on the site-specific information specified in 40 CFR § 257.91(b). If the groundwater monitoring system includes the minimum number of monitoring wells specified in 40 CFR § 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 unit and determined that sufficient information is available to make the certification required under 40 CFR § 257.91(f).

This groundwater monitoring system consists of one upgradient well and seven downgradient monitoring wells, installed at locations that represent the quality of background groundwater and the quality of groundwater passing the waste boundary. The groundwater monitoring wells are installed in the uppermost saturated zone comprised of unconsolidated deposits and weathered bedrock.

**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 guaranties. 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, Donald L. Bryenton, 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 October 16, 2017, has been designed and constructed to meet the requirements of 40 CFR § 257.91, and that this certification is true and correct and has been prepared in accordance with generally accepted good engineering practices.

SIGNATURE Donald L. Bryenton

DATE 10/16/17

