

Groundwater Monitoring System Certification
Facility: Talen Montana, LLC Colstrip Steam Electric Station

CCR Units:

Colstrip 1&2 B Flyash Pond	Colstrip 3&4 EHP A Cell
Colstrip 1&2 Bottom Ash Pond	Colstrip 3&4 EHP B Cell
Colstrip 3&4 Bottom Ash Pond	Colstrip 3&4 EHP C Cell
Colstrip 1&2 STEP D Cell	Colstrip 3&4 EHP D/E Cell
Colstrip 1&2 STEP E Cell	Colstrip 3&4 EHP G Cell
Colstrip 1&2 Old Clearwell	Colstrip 3&4 EHP J Cell
	Colstrip 3&4 EHP J-1 Cell

1. Introduction

On April 17, 2015, the US EPA published a final rule to regulate the disposal of coal combustion residuals (CCR) from electric utilities as solid waste under subtitle D of the Resource Conservation and Recovery Act. The CCR Rule was published in the federal register on October 19, 2015 (Title 40 Code of Federal Regulations, Part 257, Subpart D).

Pursuant to §257.90(b)(1)(i) and §257.90(b)(2), the owner or operator of existing and new CCR landfills or surface impoundments must install a groundwater monitoring system(s), as required by §257.91. The performance standard of §257.91(a) requires that owners or operators of a CCR Unit must install a groundwater monitoring system that accurately represents the quality of background groundwater that has not been affected by leakage from a CCR Unit and that accurately represents the quality of groundwater passing the waste boundary of the CCR Unit.

In accordance with §257.91(f), the owner or operator of each CCR Unit must obtain a certification from a qualified professional engineer stating that the groundwater monitoring system has been designed and constructed to meet the performance standard of §257.91(a), site-specific technical information of §257.91(b), and minimum number of wells required by §257.91(c).

Per §257.91(d), multiunit groundwater monitoring systems may be installed instead of separate systems if, based on site-specific technical information, the multiunit system is equally as capable of detecting monitored constituents at the waste boundary of the CCR Unit as the individual groundwater monitoring systems.

Each of the CCR Units at the Colstrip Steam Electric Station (Colstrip-SES), as listed above, is classified as an existing or new surface impoundment or landfill. As of the date of this certification, groundwater monitoring systems have been installed for each CCR Unit, including two multiunit groundwater monitoring systems.

2. Assessment and Limitations

Hydrometrics, Inc. was retained by Talen Montana, LLC, operator of the Colstrip SES, to design, install, and assess the groundwater monitoring systems for the above-referenced CCR Units and to certify as to whether or not they meet the requirements of §257.91. The final assessment was made based on site

specific hydrogeological and other technical information found in the *Coal Combustion Residuals Rule Comprehensive Groundwater Monitoring Plan* (Hydrometrics, Inc. 2017) for the Colstrip SES, which includes documentation of the design, installation, and development of groundwater monitoring wells, and is kept in the Colstrip SES CCR operating record per §257.105(h)(2).

Conclusions and opinions made regarding the groundwater monitoring systems are on the basis of the engineer's experience, qualifications, and professional judgement and do not constitute a warranty. Further, results of assessments made based on environmental, geological, hydrogeological, and geotechnical conditions, consistent with those found in the complex depositional environment of the Colstrip SES, are subject to and limited by a high degree of variability. However, it is demonstrated in the referenced monitoring plan that sufficient information exists regarding the groundwater monitoring systems to make the certification required under §257.91(f).

3. Certification

I, Richard Labbe, a registered Professional Engineer in the State of Montana, certify that the groundwater monitoring systems installed for each of the CCR Units at the Colstrip Steam Electric Station, as listed on page 1 of this certification, meet the requirements of **§257.91 Groundwater monitoring systems**. This certification is made in compliance with the specific requirements of §257.91(f).

Richard Labbe, P.E.
License No. 48761PE
October 10, 2017

