

2019 Annual Plan and 5-Year Plan

**Administrative Order on Consent
Regarding Impacts Relating to
Wastewater Facilities Comprising the Closed-Loop System**

**Colstrip Steam Electric Station
September 24, 2019**

Background

On August 3, 2012, PPL Montana and Montana Department of Environmental Quality (MDEQ) entered into an Administrative Order on Consent to address groundwater seepage from wastewater facilities at the Colstrip Steam Electric Station. Under Section X of this Order, PPL Montana (Talen Montana) is obligated to submit for MDEQ review and approval annually an Annual and 5-Year Plan. The following document provides the 2019 Annual and 5-Year Plan under this Order.

AOC Related to Wastewater Facilities at Colstrip

2019 Annual Plan – provide a status of activities underway and detailed schedule for scope of work for projects in current year, including a schedule of completion of Site Reports.

Activities specifically identified in the AOC. Note that timely review of the work plans and reports identified below help maintain this schedule, but it is understood that each activity may require additional time for review and to address comments before it can be approved. The approval of precedent activities could affect the dates of submittal of subsequent activities. A Gantt chart is attached that identifies the planned schedule for AOC required activities.

- Submit proposed 2019 Annual Plan and 5-Year Plan to MDEQ for review. Target 7/15/19
- Conduct 2019 Annual Meeting with MDEQ, finalize Annual & 5-year plans. Target 8/15/19
- Submit revised 3&4 EHP Remedy Evaluation Report to MDEQ by 8/30/19
- Submit revised 1&2 SOEP/STEP Part 1 Remedy Evaluation Report to MDEQ by 10/1/19
- Submit final RD/RA design for Plant Site fresh water injection to MDEQ by 10/4/19
- Provide updated Financial Assurance of \$2.675m (see page 5) by 12/15/19
- Submit revised 1&2 SOEP/STEP Part 2 Remedy Evaluation Report to MDEQ by 4/30/20

The following activities are activities not specifically identified in the AOC or are interim response actions for the 2019 annual plan period. While the AOC provides for work to be done as an interim response action, the examples provided in the AOC are not exhaustive, and the prompt action described below is to respond to circumstances that will be identified in the respective work plans and not because of an acute threat to human health or a recent spill.

- Submit 2018 Armells Creek Synoptic Run Report to MDEQ by 7/15/19
- Submit full scale system Plant Site fresh water injection request to EPA by 8/1/19
- Submit Plant Site fresh water injection pilot test results to MDEQ by 8/1/19
- Complete 615D/SP-15 Investigation and submit report to MDEQ by 8/15/19
- Complete 648D/1108D/1167D Area Evaluation follow-up by 11/15/19
- Construct Plant Site/1&2 SOEP/STEP Groundwater Capture Storage Pond by 12/1/19
- Design & Install Plant Site fresh water injection and capture wells by 12/1/19
- Cap & Close Pond A by 12/31/19
- Cap & Close 3&4 Bottom Ash Pond by 12/31/19
- Install horizontal capture well under Pond A by 12/31/19
- Install horizontal capture well under former Brine Pond area by 12/31/19
- Complete CCR Rule annual groundwater monitoring report by 1/31/20
- Submit Groundwater Capture Storage Pond Completion Report to MDEQ by 2/1/20
- Conduct annual vegetation study for SOEP/STEP/EHP areas and submit report by 4/1/20

2019 5-Year Plan – provide a projection of long-term schedules for actions related to Article VI Investigation and Remediation

- Submit proposed Annual Plan & 5-Year Plans to MDEQ by 6/1 of each year
- Conduct Annual Meeting with MDEQ by 7/15 of each year
- Develop with each Annual Plan, a proposed revision, as needed, to the Financial Assurance that has been established for ongoing obligations under the AOC including monitoring
- Other subsequent plans identified in the AOC will likely occur in the 2019 – 2021 time frame but are dependent upon approval of the plans identified above and will be included in future annual and 5-year plans as they become better defined

Other activities that are planned for the 5-year period but not specifically identified in the AOC are identified below. Note that the proposed schedules are based on current conditions and subject to change because of unanticipated changes in pond conditions, CCR regulations, or approved budgets.

- Submit Annual Water Monitoring Reports by 4/15 of each year
 - o This time frame allows adequate time for testing, analysis and data evaluation, which cannot reasonably be completed sooner than this date each year. When weather and other variables allow for a consolidation of this schedule without compromising the report's integrity, Talen Montana will submit this report earlier than the date above.
- Conduct annual pond embankment inspections by a qualified professional engineer. (CCR Rule)
- Conduct annual EAP review with local emergency responders. (CCR Rule)
- Conduct independent Dam Structural Stability Assessment every 5 years. (CCR Rule)
- Conduct Dam Safety Factor Assessment every 5 years. (CCR Rule)
- Continue with dewatering efforts at the ash impoundments including forced evaporation
- Cap and close the 1&2 STEP A Cell in 2020
- Construct Dry Disposal System for 3&4 EHP in 2021
- Construct Paste Plant Bypass Dewatering System for 3&4 EHP in 2021
- Cap and close the 3&4 EHP D/E Cell in 2021
- Cap and close the 1&2 STEP Old Clearwell in 2022. (CCR Rule)
- Cap and close the 1&2 STEP E Cell in 2022. (CCR Rule)
- Cap and close the 1&2 Bottom Ash Pond in 2022. (CCR Rule)
- Complete construction of the Plant Site/1&2 Capture Well Treatment System in 2022
- Construct the Plant Site/1&2 Capture Well Treatment System Solids Disposal area in 2022
- Cap and close the 3&4 EHP B Cell in 2022. (CCR Rule)
- Close the 1&2 Scrubber Pipeline & Drain Pond in 2022
- Upgrade liner 3&4 EHP F Cell in 2023
- Close the 1&2 STEP D Cell in 2023
- Cap and close the 1&2 B Pond in 2023. (CCR Rule)
- Construct closure and liner system in the 3&4 EHP G Cell in 2024. (CCR Rule)
- Construct closure and liner system in the 3&4 EHP C Cell in 2024. (CCR Rule)

Financial Assurance – provides for the first and second phase (addressing obligations for current and continuing remedial actions including monitoring). Plant Site related activities that were previously identified here are now included in the Plant Site Remedy financial assurance that has been provided separately.

Annual Activities

- 1&2 Groundwater Monitoring activities, \$0 (included in 1&2 STEP Part 1 Revised RE planned for submittal to MDEQ by 10/1/19)
- 3&4 Groundwater Monitoring activities, \$0 (included in 3&4 EHP Revised RE submitted to MDEQ 8/30/19)
- 1&2 STEP Groundwater Remediation O&M, \$0 (included in 1&2 STEP Part 1 Revised RE planned for submittal to MDEQ by 10/1/19)
- 3&4 EHP Groundwater Remediation O&M, \$0 (included in 3&4 EHP Revised RE submitted to MDEQ 8/30/19)
- 3&4 EHP 12d Stipulation Monitoring activities, \$150,000
- East Fork Armells Creek Synoptic Run, \$25,000
- Pond-related Vegetation Studies, \$30,000
- Forced Evaporation System O&M, \$0 (included in 3&4 EHP Revised RE submitted to MDEQ 8/30/19)
- Collection System Water Treatment (3&4 VSEP) O&M, \$300,000

Second phase Article VI obligations to complete

- 1&2 SOEP/STEP Remedy Evaluation and Selection - \$100,000
- 3&4 EHP Remedy Evaluation and Selection - \$50,000

This financial assurance cover 5 years of annual activities and completion of the second phase Article VI obligations. Talen Montana provided DEQ with a Surety Bond for \$8.345 million to cover similar obligations identified in the previous annual plan. The amount identified in this current plan is \$2.675 million. The current bond will be adjusted to cover this amount later this year.

Financial assurance for the approved Plant Site Remedy and the Facility Closure Plans for all three areas has been provided to MDEQ under separate bonds (\$146.7m).

Once the 1&2 SOEP/STEP Part 1 Remedy and the 3&4 EHP Remedy have been approved by MDEQ, financial assurance for those activities will be provided.