

**Environmental Assessment
Water Protection Bureau**

Name of Project: REC Advanced Silicon Materials, LLC; MT0030350

Description of Project: This is the reissuance of an MPDES permit for the REC Advanced Silicon Materials wastewater and stormwater discharges. The receiving waters are Sheep Gulch and Silver Bow Creek. REC Silicon produces high purity poly crystalline silicon for the electronics industry by refining metallurgical grade silicon.

Location of Project: Silver Bow County, Township 3N, Range 9W, Section 35

Agency Action and Applicable Regulations: DEQ proposes to renew the MPDES permit for a five-year cycle.

Applicable Rules and Statute:

- Administrative Rules of Montana (ARM Title 17 Chapter 30)
 - Subchapter 2 – Water Quality Permit Application and Annual Fees.
 - Subchapter 5 – Mixing Zones in Surface and Ground Water.
 - Subchapter 6 – Surface Water Quality Standards.
 - Subchapter 7 – Nondegradation of Water Quality.
 - Subchapter 11 – Storm Water Discharges.
 - Subchapter 12 and 13 – Montana Pollutant Discharge Elimination System Standards.
- Montana Water Quality Act, MCA 75-5-101 et. seq.

Summary of Issues: DEQ is proposing new effluent limits for aluminum, and revised limits for dissolved oxygen and total recoverable nickel. The proposed permit will have new and revised effluent limits based on TMDL implementation for total nitrogen, total phosphorus, arsenic, copper, mercury, and zinc. Monitoring requirements for methylene chloride are removed. All other permit limits are carried forward from the 2010-permit.

Affected Environment & Impacts of the Proposed Project:

- Y = Impacts may occur (explain under Potential Impacts).
- N = Not present or No Impact will likely occur.

Impacts on the Physical Environment	
Resource	[Y/N] Potential Impacts and Mitigation Measures
1. Geology and Soil Quality, Stability and Moisture: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[N] This facility is long established and represents no new impacts present.
2. Water Quality, Quantity and Distribution: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[N] The permit contains effluent limits and monitoring requirements that will continue to assure discharge quality.
3. Air Quality: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N] This facility is long established and represents no new impacts.

Impacts on the Physical Environment	
Resource	[Y/N] Potential Impacts and Mitigation Measures
4. Vegetation Cover, Quantity and Quality: Will vegetation communities be significantly impacted? Are any rare plants or cover types present?	[N] Based on a search of the Montana Natural Heritage Database, there are no vegetative species of concern in or within one mile of the site. In addition, this MPDES permitting action is the renewal of an existing wastewater discharge permit, with no anticipated impact on these species.
5. Terrestrial, Avian and Aquatic Life and Habitats: Is there substantial use of the area by important wildlife, birds or fish?	[N] Based on a search of the National Heritage Database, there are occurrences of 2 species of concern within one mile of the site: <i>Gulo gulo</i> (wolverine) and <i>Ursus arctos</i> (grizzly bear). However, this MPDES permitting action is the renewal of an existing wastewater discharge permit, with no anticipated impact on these or other species.
6. Unique, Endangered, Fragile or Limited Environmental Resources Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern.	[N] See number 5.
7. Sage Grouse Executive Order: Is the project proposed in core, general or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program at https://sagegrouse.mt.gov/ ? If yes, did the applicant attach documentation from the Program showing compliance with Executive Order 12-2015 and the Program's recommendations? If so, attach the documentation to the EA and address the Program's recommendation in the permit. If project is in core, general or connectivity habitat and the applicant did not document consultation with the Program, refer the applicant to the Sage Grouse Habitat Conservation Program.	[N] DEQ verified that this facility is not within core, general, or connectivity sage grouse habitat.
8. Historical and Archaeological Sites: Are any historical, archaeological or paleontological resources present?	[N] This facility is long established and represents no new impacts.
9. Aesthetics: Is the project on a prominent topographic feature? Will I be visible from populated or scenic areas? Will there be excessive noise or light?	[N] This facility is long established and represents no new impacts.
10. Demands on Environmental Resources of Land, Water, Air or Energy: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded powerlines or other energy sources be needed?	[N] This facility is long established and represents no new impacts.
11. Impacts on Other Environmental Resources: Are there other activities nearby that will affect the project?	[N] This facility is long established and represents no new impacts.

Impacts on the Human Environment	
Resource	[Y/N] Potential Impacts and Mitigation Measures
12. Human Health and Safety: Will this project add to health and safety risks in the area?	[N] Effluent limits will protect public health.
13. Industrial, Commercial and Agricultural Activities and Production: Will the project add to or alter these activities?	[N] No impacts are expected at this time.
14. Quantity and Distribution of Employment: Will the project create, move or eliminate jobs? If so, estimated number.	[N] No impacts are expected at this time.
15. Local and State Tax Base and Tax Revenues: Will the project create or eliminate tax revenue?	[N] No impacts are expected at this time.
16. Demand for Government Services: Will sustainable traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] No impacts are expected at this time.
17. Locally Adopted Environmental Plans and Goals: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] No impacts are expected at this time.
18. Access to and quality of Recreational and Wilderness Activities: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] No impacts are expected at this time.
19. Density and Distribution of Population and Housing: Will the project add to the population and require additional housing?	[N] No impacts are expected at this time.
20. Social Structures: Is some disruption of native or traditional lifestyles or communities possible?	[N] No impacts are expected at this time.
21. Cultural Uniqueness and Diversity: Will the action cause a shift in some unique quality of the area?	[N] No impacts are expected at this time.
22. Other Appropriate Social and Economic Circumstances:	[N] No impacts are expected at this time.
23(a). Private Property Impacts: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N] No impacts are expected at this time.
23(b). Private Property Impacts: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.	[N] No impacts are expected at this time.
23(c). Private Property Impacts: If the answer to 21(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	[N] No impacts are expected at this time.

24. Description of and Impacts of other Alternatives Considered: None

25. Summary of Magnitude and Significance of Potential Impacts: None

26. Cumulative Effects: None

27. Preferred Action Alternative and Rationale: The preferred action is to reissue the MPDES permit. This action is preferred because the permit program provides the regulatory mechanism for protecting water quality by enforcing the terms of the MPDES permit.

Recommendation for Further Environmental Analysis: EIS More Detailed EA No Further Analysis

Rationale for Recommendation: N/A

28. Public Involvement: A 30-day public comment period will be held.

29. Persons and agencies consulted in the preparation of this analysis: None

EA Checklist Prepared B: Joanna McLaughlin

Date: April 2021

Approved By:

DRAFT

Jon Kenning, Chief
Water Protection Bureau

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Date