

DEPARTMENT OF ENVIRONMENTAL QUALITY

PERMITTING AND COMPLIANCE DIVISION

Air and Waste Management Bureau



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November 2, 1998

*Recd 11-04-98
EQC*

John McPeek
Advanced Silicon Materials, Inc.
P.O. Box 3466
Butte, Montana 59702

Dear Mr. McPeek:

Air Quality Permit #2940-01 is deemed final as of October 30, 1998 by the Department of Environmental Quality. This permit is for a high purity polycrystalline silicon manufacturing plant. All conditions of the department's decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the department,

Handwritten signature of Richard Knatterud in cursive.

Richard Knatterud
Air Permitting Section Supervisor

RK:bjd

Enclosure

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air and Waste Management Bureau
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FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued For: Advanced Silicon Materials Inc.
Butte Operations
119140 Rick Jones Way
P.O. Box 3466
Butte, MT 59702

Permit Number: 2940-01

Preliminary Determination on Permit Issued: September 28, 1998
Department Decision Issued: October 14, 1998
Final Permit Issued: October 30, 1998

Montana Environmental Policy Act (MEPA) Compliance: An environmental assessment, required by MEPA, was completed for this project as follows.

Legal Description: Section 35, Township 3 North, Range 9 West, Silver Bow County, Montana.

Description of Project: The current permit action is an alteration of permit #2940-00. The alteration will identify that the scrubber system for the chlorosilane vents has been reconfigured and maintenance emissions will now be routed and controlled by the Maintenance Scrubber (T-1604) and then vented to atmosphere through stack ST-1602. This change is contained in Section II.A.20 and will result in a negligible emissions increase because maintenance emissions are small and infrequent. This alteration also identifies that a neutralized solids bin (EP#126) is proposed to be added to the facility. This bin vents to a baghouse (F-1602) and will have an allowable PM-10 emission limitation of 2 lbs/hr.

Benefits and Purpose of Proposal: This permit alteration will allow ASiMI the operational flexibility it needs to conduct its operation.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider: The department has reviewed a Best Available Control Technology (BACT) analysis as part of this permitting action. The BACT analysis can be found in Section III of the permit analysis.

A listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency: A listing of the enforceable permit conditions and a permit analysis is contained in permit #2940-01.

Description and analysis of regulatory impacts on private property rights: The department has considered alternatives to the conditions imposed in this permit as part of the permit development. The department has determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

Potential Impact on Physical Environment

		Major	Moderate	Minor	None	Unknown	Comments
1	Terrestrial and Aquatic Life and Habitats			X			yes
2	Water Quality, Quantity and Distribution			X			yes
3	Geology and Soil Quality, Stability and Moisture			X			yes
4	Vegetation Cover, Quantity and Quality				X		yes
5	Aesthetics				X		yes
6	Air Quality			X			yes
7	Unique Endangered, Fragile or Limited Environmental Resource				X		yes
8	Demands on Environmental Resource of Water, Air and Energy			X			yes
9	Historical and Archaeological Sites				X		yes
10	Cumulative and Secondary Impacts			X			yes

Potential Impact on Human Environment

		Major	Moderate	Minor	None	Unknown	Comments
1	Social Structures and Mores				X		yes
2	Cultural Uniqueness and Diversity				X		yes
3	Local and State Tax Base and Tax Revenue			X			yes
4	Agricultural or Industrial Production			X			yes
5	Human Health			X			yes
6	Access to and Quality of Recreational and Wilderness Activities				X		yes
7	Quantity and Distribution of Employment				X		yes
8	Distribution of Population				X		yes
9	Demands for Government Services			X			yes
10	Industrial and Commercial Activity			X			yes
11	Locally Adopted Environmental Plans and Goals				X		yes
12	Cumulative and Secondary Impacts			X			yes

Potential Impact on Physical Environment

1. There may be impacts to terrestrial and aquatic life and habitats from the increase in allowable emissions. However, any impacts will be minor because this permit only allows a small increase in permitted emissions.
2. There may be impacts on the water quality, quantity, and/or distribution as a result of this permitting action. However, any impacts will be minor because this permitting action only allows a small number of sources with a minimal impact to the facility.
3. There will be no additional impacts to the geology and soil quality, stability and moisture as a result of this permitting action.
4. There will be no additional impacts to the vegetation cover, quantity, and quality as a result of this permitting action.
5. There will be no additional impacts to the aesthetics of the area from this permitting action.
6. There may be impacts to the air quality of the area from the increase in allowable emissions. However, any impacts will be minor because this permit only allows a small increase in permitted emissions.
7. There will be no additional impacts to any unique endangered, fragile, or limited environmental resource as a result of this permitting action.
8. There may be an increase in the demand on air, water, and energy resources as a result of the increase in allowable emissions. However, any impact would be minor because of the small increase in permitted allowable emissions and because the new equipment added under this permit are insignificant in impact compared to the rest of the facility.
9. There will be no additional impacts to historical and archeological sites as a result of this permitting action.
10. There may be cumulative and secondary impacts from the increase in allowable emissions. However, any impacts should be minor because this permit only allows a small increase in permitted emissions. In addition, the environmental assessment completed for the entire facility demonstrated that there would not be a significant impact from its operation.

Potential Impact on Human Environment

1. There will be no additional impact to any social structure or mores as a result of this permitting action.
2. There will be no additional impact to the cultural uniqueness and diversity as a result of this permitting action.
3. There will be a minor impact to the local and state tax base and tax revenue as a result of this permitting action because new equipment will be purchased and installed.

4. There may be a minor impact to the agricultural and industrial production as a result of the new equipment installed as a result of this permitting action.
5. There may be impacts to human health from the increase in allowable emissions. However, any impacts will be minor because this permit only allows a small increase in permitted emissions and the permit analysis demonstrates that ASiMI can be expected to operate in compliance with all applicable standards.
6. There will be no additional impact to the access to and quality of recreational and wilderness activities as a result of this permitting action.
7. There will be no additional impact to the quantity and distribution of employment as a result of this permitting action.
8. There will be no additional impact to the distribution of population as a result of this permitting action.
9. There may be an impact on the demand for government services as a result of this permitting action because of the inspection and permitting activities pertaining to the new equipment and the facility. However, because this is an existing facility with a large number of emission sources, and additional impact from this permitting action will be minor.
10. There may be a minor increase in the industrial and commercial activity as a result of this permitting action.
11. There will be no additional impact to the locally adopted environmental plans and goals as a result of this permitting action.
12. There may be cumulative and secondary impacts from the increase in allowable emissions. However, any impacts should be minor because this permit only allows a small increase in permitted emissions. In addition, the environmental assessment completed for the entire facility demonstrated that there would not be a significant impact from its operation.

Recommendation: An EIS is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The source is applying the Best Available Control Technology; the analysis indicates compliance with all applicable air quality rules and regulations. The emissions and associated ambient impacts from this permitting action will be minimal.

Other groups or agencies contacted or which may have overlapping jurisdiction: None

Individuals or groups contributing to this EA: Department of Environmental Quality - Permitting and Compliance Division.

EA prepared by: David Klemp

Date: September 25, 1998