ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Community Meeting

South32 Hermosa Project
Significant Permit Revision

Karla Murrieta, Air Permits Manager

November 12, 2026

Tips for a Successful Meeting

- Be generous
- Share from your experience and perspective
- Listen when others are speaking
- Allow space for all to participate
- Be respectful and kind as we believe that this will lead to good outcomes

South32 Hermosa Project Overview

Air Quality Significant Permit Revision

Ambient Air Impact Analysis

Questions & Answers



South32 Hermosa Project Overview

- The Hermosa Project is located five miles from Patagonia, AZ
- It is a mine with two deposits:
  - Taylor sulfide deposit (Taylor), a high-grade zinc-lead-silver deposit
  - Clark oxide deposit (Clark), a high-grade manganese-zinc-silver deposit
- A Class I Air Quality Permit was issued in August 2024

Air Quality Significant Permit Revision (SPR)



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Air Quality Permitting Process

Received Permit Application (January 30, 2026)

Reviewed Permit Application, Emissions Calculations, Modeling, and Regulations

Drafted Permit and Technical Support Document

Engaged with Local Officials and Reached Out to Community Members

Air Quality Permitting Process (Continued)

- Host Informal Community Meeting (November 12, 2026)
- Initiate Formal Public Participation Period (November 13, 2026)
- Conduct Formal Public Hearing (December 10, 2026)
- Close Formal Public Participation Period (December 14, 2026)
- Respond to Comments
- Send to the U.S. Environmental Protection Agency (EPA) for Review
- Make Final Agency Action

Changes Proposed During This SPR

1. Changes to Natural Gas Engines
2. Other Changes:
    - Diesel Engines
    - Tailings Moisture
    - Road Emissions and Configurations

Changes to Natural Gas Engines

- **Currently Permitted**

  58 natural gas engines with 1 backup

- **Proposed Change**

  40 natural gas engines with 4 backup

Changes to Natural Gas Engines

- **Currently Permitted**

  All natural gas engines must be interlocked

- **Proposed Change**

  Remove interlock requirement as it could result in power interruption and create safety risks

Changes to Natural Gas Engines

- **Currently Permitted**

  All natural gas engines must operate at an operating range of 75% to 100% load

- **Proposed Change**

  Up to 14 natural gas engines to operate within 50% to 100% load, and the rest to operate at 75% to 100% load

Summary

Currently Permitted	Proposed
58 natural gas engines with 1 backup	40 natural gas engines with 4 backup
All natural gas engines must be interlocked	All natural gas engines must meet operating conditions
All natural gas engines must operate at an operating range of 75% to 100% load	14 natural gas engines to operate within 50% to 100% load, and the rest to operate at 75% to 100% load

Other Changes

- Changes to Diesel Engines
  - Clarify the number of diesel engines in each genset and slightly adjust emission calculations
    - No changes to existing emissions limitations
    - Each 910 kW engine is a genset of two engines with each one rated at 455 kW



Other Changes

- Change to Tailings Moisture
  - Moisture content was updated from 11.0% to 11.8% to align with latest Mine Plan of Operations (MPO)
  - This resulted in a decrease in emissions from the tailings transfer points and dozers driving on the tailings in accordance with their MPO



Other Changes

- Changes to Road Configurations and Road Emissions
  - Each road segment length was verified
    - Most of them remain unchanged
    - Total length of the roads decreased
  - Road configurations and emissions were updated to reflect the reduction in natural gas engines and to be consistent with the changes in Minor Permit Revision No. 109292

Total Emission Changes

Pollutants	Changes (tons per year)	Permitting Exemption Thresholds (tons per year)
NO_X	–51	20
$PM_{10}/PM_{2.5}$	+14	PM_{10}: 7.5 $PM_{2.5}$: 5.0
CO	–50	50
SO_2	+1	20
VOCs	–26	20
HAPs	–27	N/A
GHG	–345k	N/A

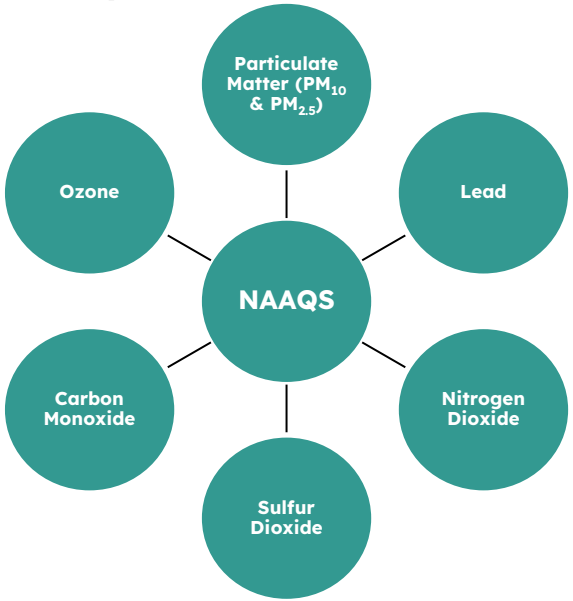
Ambient Air Impact Analysis

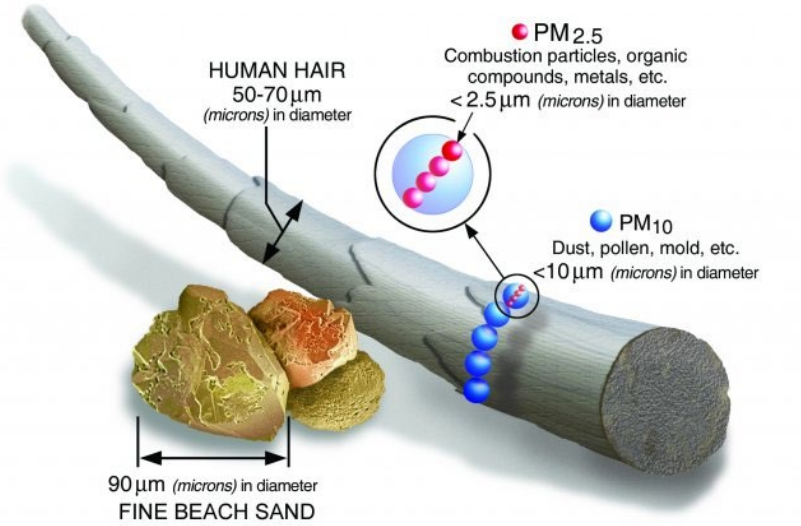


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National Ambient Air Quality Standards (NAAQS)

Federal health-based ambient air quality standards that are protective of sensitive populations including children, the elderly, and populations with respiratory illnesses.

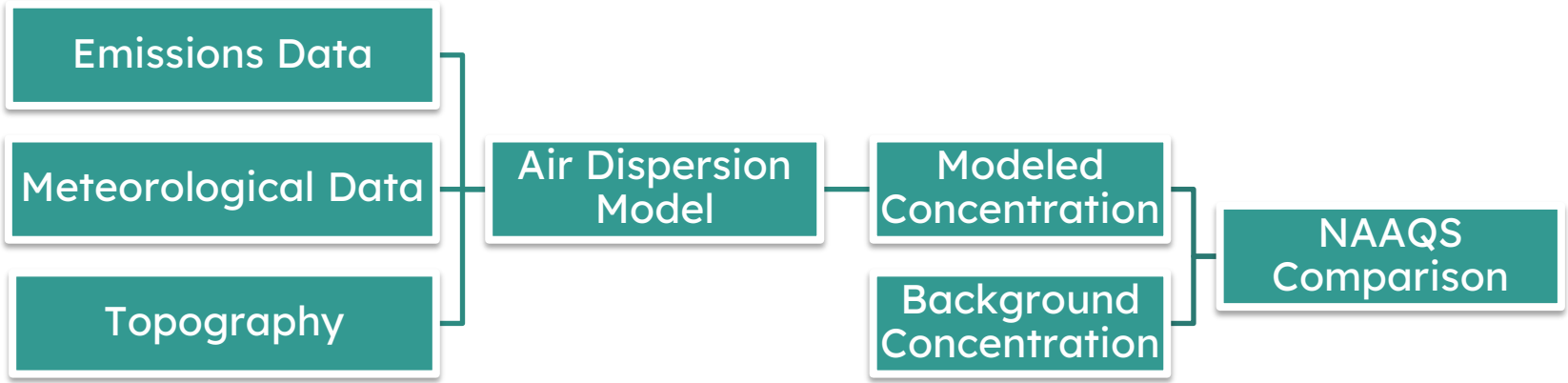




Air Dispersion Modeling

- Why modeling?
  - For a new facility not yet built or operated, the only way to predict potential air quality impacts in advance is through modeling.
  - Modeling allows agencies to evaluate compliance with air quality standards before construction.
- What is modeling?
  - Mathematical simulation of how air pollutants travel and disperse in the atmosphere.
  - Using emission data (or how much a source emits) and meteorological data, the model predicts pollutant concentrations at downwind locations.

Demonstrating Compliance with Modeling to the NAAQS



Background Concentrations:
The pollution levels that currently exist in the area before the operation of a new facility. These concentrations are typically established using ambient air monitors operated by federal, state, or local agencies.

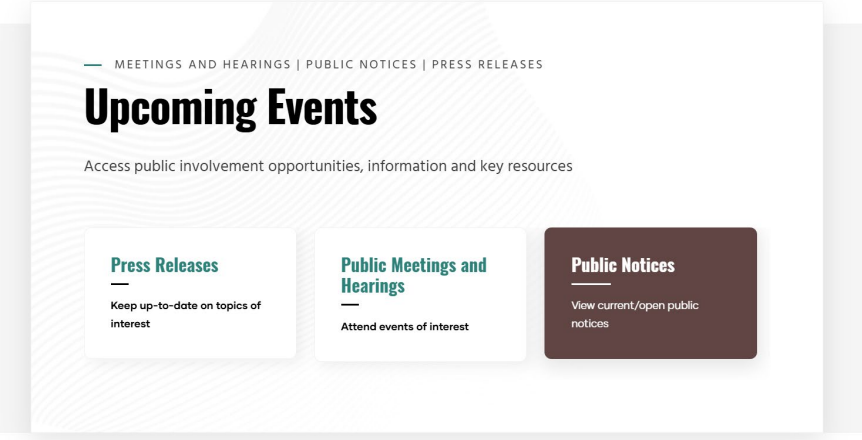
Model Results

Pollutant	Averaging Period	Modeled Concentration (microgram per cubic meter)	Background Concentration (microgram per cubic meter)	Total Concentration (microgram per cubic meter)	NAAQS (microgram per cubic meter)	Exceeds NAAQS?
PM_{10}	24-hour	105.6	29	134.6	150	No
$PM_{2.5}$	Annual	5.02	3.65	8.67	9	No
	24-hour	16.56	7.3	23.86	35	No

All maximum modeled concentrations occurred at or near the facility's fenceline. The modeled concentrations at local communities were much lower since the concentrations dropped significantly with distance.

How to Find the Draft Permit and TSD

- The draft air quality permit and technical support document are available to review once public comment period starts
- These document are posted online at AZDEQ.gov



Review Documents:

- Original Published Public Notice | View Notice >
- Draft Permit | View Permit >
- Draft Technical Support Document (TSD) | View TSD >
- Permit Application | View App. >

Public Participation



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What Happens Next?

- Public Partcipation:
  - **Public Comment Period: Nov. 13, 2026 to Dec. 14, 2026.**
  - **Formal Public Hearing: Dec. 10, 2026.**
- ADEQ will review all comments received after the public comment period. Once comments have been responded to, ADEQ will share the responsiveness summary with all commenters
- ADEQ submits all draft documents, application materials, and responsiveness summary to the EPA for review and approval
- ADEQ can only take final action after EPA's review

How Can You Influence This Permit Decision?

- Focusing your comments on air quality permitting topics
  - Noise, light, or zoning are outside the scope of an air quality permit decision
- How to make your comments most effective
  - Point out technical or factual errors
    - Example: Emission calculations are incorrect or incomplete
  - Identify missing or misapplied regulations
    - Example: The permit missed a key federal regulation
  - Challenge reasoning with clear support
    - Example: Modeling is flawed, with evidence
  - Provide new and relevant information

Questions & Answers Session



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Questions & Answers Session

- This questions and answers session is intended to be an informal opportunity to provide information on the significant permit revision for South32 Hermosa Inc.
- Questions **will not** be part of the official record for public participation period.
- If you wish to submit comments on the official record, please submit them in writing or by email during the public participation period.

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For media questions, contact: pio@azdeq.gov

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