

US EPA ARCHIVE DOCUMENT



Romic Environmental Technologies Corporation - Southwest

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Air Emissions at Romic

The Romic facility is located on the Gila River Indian Reservation at 6760 West Allison Road, in the Lone Butte Industrial Park just southwest of Chandler, AZ.



Romic currently operates as a hazardous waste storage and treatment facility that is primarily engaged in recycling of solvents. The Environmental Protection Agency (EPA) seeks comments from the public on Romic's final permit application to continue to store and treat hazardous waste and to expand its operations.

Volatile Organic Constituents in Wastestreams at Romic

Romic accepts and recycles a variety of waste streams that have volatile organic constituents (VOCs). These include:

- Methyl Ethyl Ketone
- Methylene Chloride
- Perchloroethylene
- Xylene
- Toluene
- Trichloroethylene
- Lacquer thinner
- Ethyl Lactate
- Acetone

Volatile organic constituents are chemicals that readily evaporate at normal temperature. Once they are evaporated into the air, these chemicals could be harmful to persons who inhale them. The concentration of the chemicals in the air, and the length of time one breathes this air, would determine if an individual develops short (acute) or long term (chronic) health problems.

There are several current operations at Romic that handle wastestreams with volatile chemicals. These include:

- Storage in containers, tanks, and rail cars
- Transfer of wastes between containers, trucks, and rail cars
- Recycling of solvents

Requirements for Romic to Reduce Air Emissions

The following requirements pertain to storage and transfer of chemicals in containers, tanks, trucks, and rail cars:

- All waste containers must be kept closed except when adding or removing waste.
- All containers and rail cars must meet Department of Transportation specifications which minimize emissions through a variety of mechanisms.
- For transfer operations involving volatile chemicals, Romic is required to use an air emission reduction system.
- All tanks and piping must have annual tightness testing to make sure that volatile organic constituents (VOCs) are not passively escaping from these units.
- Romic is required to inspect all containers, rail cars, and tanks so they meet air emission standards and Romic must conduct any needed repairs.
- Romic is also required to keep records of inspections for air emissions and to report any problems or noncompliance.

CONTACT EPA:

If you have questions about Romic please contact:

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Requirements for Romic to Reduce Air Emissions

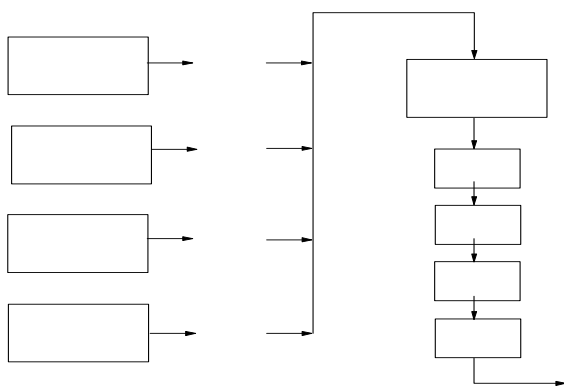
Solvent Recycling Units

All of the recycling units are located within buildings with concrete floors. The recycling units are operated on an as-needed basis. That is, after Romic receives a type of waste that can be recycled, it recycles that batch in that unit. Once that batch has been recycled, the unit is then shut down.

Air Emission Reduction System

All of Romic's tanks and recycling units are connected by pipes to an onsite air emission reduction system (see schematic below). Chemicals in these units that readily evaporate are routed to the air emission reduction system.

Romic (Southwest) Air Emission Reduction System



This reduction system consists of a VOC Treatment Unit and four carbon drums. The VOC Treatment Unit contains three condensers that chill the chemicals in the air back into a liquid that is collected in tanks and recycled. The air is then routed to four 55-gallon drums with carbon which further removes chemicals from the air. After the fourth carbon drum, the air is vented through a pipe that exits above the roof of the facility.

Romic monitors the air emission reduction system daily for temperature of the air (an efficiency measurement of the system) and for the concentration of all volatile chemicals. Samples of the air stream are taken just prior to, within, and at the exit of the system. The samples are analyzed on-site using a portable instrument that measures the total concentration of all volatile chemicals. When the concentration of volatile chemicals measured between the third and fourth carbon drum exceeds the background concentration (measured upwind of the recycling units), Romic changes out the carbon drums with fresh drums of carbon.

EPA Continues to Evaluate Romic's Air Emission Reduction System

As part of EPA's review of Romic's permit application, EPA is continuing to verify that the Air Emission Reduction System is operating in compliance with all applicable hazardous waste regulations. Additionally, EPA will continue to evaluate any potential short- or long-term risks to human health (both on-site and off-site within the community), from the operation of Romic's storage and recycling units and the air emission reduction system.

EPA Evaluates Romic's Risks to Health and the Environment

Prior to arriving at a permit decision, EPA will ensure that the facility does not pose an unacceptable risk to human health or the environment. EPA's overall risk evaluation of Romic includes:

- independent air sampling at Romic's perimeter and from the air emission reduction system,
- an evaluation of the range of chemicals used and processed by Romic,
- development of potential exposure point concentrations,
- development of risk estimates which characterize potential human health risk and ecological hazard,
- unique consideration of potentially threatened or endangered species and habitats,
- analysis of any incidents over the preceding three years which required Romic to implement their emergency plan,
- analysis of potential malfunction and a reasonable worst case scenario for an emergency incident at the facility, and
- a summary and comparison of hazards associated with facilities near Romic which manufacture, store, or otherwise handle hazardous chemicals.