

# Costly Contamination



Photo by Moapa Band of Paiutes

## Facts on NV Energy's Reid Gardner Power Plant

On September 27, 2011 the Nevada Public Utilities Commission (PUC) begins an investigation of NV Energy's Reid Gardner coal-burning power plant near Moapa to inform the PUC's upcoming decision about how long the 1960s-era plant will continue to operate before it is retired. In its analysis of the implications for southern Nevadans, the PUC will need to consider a range of current and potential future costs, risks, and liability posed by Reid Gardner's emissions and combustion waste pollution, including the public health impacts and expense.

### Plant Overview

- **Output:** 557 megawatts from four operating units burning coal from southern Utah.
- **Ownership:** NV Energy is the majority owner, with sole ownership of units 1-3. Unit 4 is jointly owned by NV Energy and the California Department of Water Resources.
- **Location:** Near Moapa, Nevada — about 45 miles from Las Vegas — adjacent to the Moapa River Indian Reservation where a community of approximately 300 [Moapa Band of Paiute](#) Indians live. The tribal lands were originally set aside in 1874. Residents' homes are very close to Reid Gardner's stacks, coal ash landfill, and wastewater ponds.

### So. Nevada Air Quality Problems

Clark County has struggled with [violation of limits for particulate pollution and ozone](#). The American Lung Association gives Clark County an ["F" grade for ozone pollution](#).

In Nevada, [electric power plants are the No. 1 nitrogen oxide polluter](#), topping vehicle emissions. In Clark County more than twice as much nitrogen oxide comes from electricity generation than from on-road vehicle exhaust.

## Reid Gardner Air Pollution

Each year, Reid Gardner emits more than 4,000 tons of nitrogen oxides, more than 1,200 tons of sulfur dioxide, and more than 5 million tons of carbon pollution.

- Estimates by the independent [Clean Air Task Force](#) show that pollution from Reid Gardner results in about **\$28 million in yearly public health costs** that are shifted to the public.
- According to [Physicians for Social Responsibility](#), low levels of exposure to **nitrogen oxides** can irritate the eyes, nose, throat, and lungs, and may cause coughing, shortness of breath, and nausea; high levels of exposure can cause serious respiratory system damage. **Sulfur dioxide** can exacerbate asthma at low levels and cause respiratory illness and cardiovascular diseases at high levels.
- The chemicals in Reid Gardner's emissions also react with sunlight and other pollutants to form **ground-level ozone**, the major component of smog, which the [American Lung Association](#) calls "the most widespread pollutant in the U.S. [and] one of the most dangerous." Ozone can cause severe coughing, shortness of breath, and pain when breathing, as well as trigger asthma attacks, aggravate chronic lung disease, and cause permanent damage to the lining of the lung.
- Sulfur dioxide and nitrogen oxides also combine with other compounds to form **particle pollution**, one of the deadliest air pollutants, causing an estimated 60,000 premature deaths a year. Particulate matter exposure can cause heart attacks, strokes, asthma attacks, and lung cancer. Fine particles can be inhaled deeply, evading the human lungs' natural defenses.

### EPA Decision Due on Pollution Control Upgrades at Plant

Because of its age and its emissions impact on visibility-impairing haze at national parks such as Zion and Grand Canyon, Reid Gardner is overdue for pollution control upgrades as required under the Clean Air Act.

The EPA must issue a decision soon on whether to accept Nevada's proposal for nitrogen oxide reductions at Reid Gardner that are four times weaker than limits EPA has recently required at other similarly aged plants in other states.

## Reid Gardner Coal Ash Waste

The toxic ash left after coal is burned at Reid Gardner has been piled higher and higher on an unlined landfill. Coal ash contains arsenic, mercury, lead, cadmium, and over a dozen other heavy metals.

- Ash from the landfill blows into the homes, eyes, and lungs of residents on the Moapa Indian Reservation, forcing people indoors and changes in cultural practices ([video](#)). Contamination from the landfill and the plant's wastewater ponds seeps into groundwater that feeds springs and the Muddy River. The river flows east to Lake Mead, Southern Nevada's major drinking water supply.
- The [chemicals in coal ash](#) pose an acute risk of cancer and neurological effects, as well as heart damage, lung disease, kidney disease, reproductive problems, gastrointestinal illness, birth defects, and impaired bone growth in children.
- Analysis of NV Energy data reveals that coal ash landfill operations at Reid Gardner will produce 3.6 to 46 million gallons per year of coal-ash contamination ("leachate") that enters the groundwater. The Southern Nevada Health District has recently issued a permit allowing NV Energy to significantly expand the size of Reid Gardner's coal ash landfill, with no requirement to line the existing landfill.

### Jobs in Clean Energy

There are now **2.7 million jobs in the clean energy sector** in the U.S, paying median wages 13 percent higher than wages overall according to the [Brookings Institution](#). Solar energy is one of the fastest-growing industries in the country, with more than 5,500 solar companies now in operation employing 100,000 workers. The Moapa Band of Paiutes are developing solar resources on reservation land.

To download an electronic version of this fact sheet, please visit <http://sierraclub.org/coal/nv/>. For more information please call Sierra Club's Las Vegas office at 702.732.7750 or email [vinny.spotleson@sierraclub.org](mailto:vinny.spotleson@sierraclub.org).