

**DRAFT Key Points**  
**Rosemont Copper Aquifer Protection Permit (APP)**  
**January 3, 2012**

**Situation:** In 2009, Rosemont Copper submitted an APP application to the Arizona Department of Environmental Quality (DEQ). Almost 3 years later, on December 20, 2011, the DEQ published a notice of a preliminary decision to issue this permit. The public comment deadline is February 3. DEQ will also conduct a public hearing in Tucson on January 5, 5:00 to 7:00 PM at Palo Verde High School (1302 S. Avenida Vega)

The permit addresses nine specific “discharging” facilities related to the proposed Rosemont copper mine. They are:

- Dry Stack Tailings Facility
- Primary Settling Basin
- Process Water Temporary Storage Pond
- Raffinate Pond
- Heap Leach Pad
- Pregnant Leach Solution (PLS) Ponds
- Stormwater Pond
- Waste Rock Storage Area
- Waste Management Area (Non-Municipal Solid Waste Landfill)

The permit requires that the applicant: 1) meet Aquifer Water Quality Standards (drinking water) at points of compliance; 2) demonstrate Best Available Demonstrated Control Technology (BADCT) to reduce discharge; 3) demonstrate financial capability; and 4) technical capability to comply with water quality standards.

This permit does not set discharge limits of pollutants from these facilities. Rather, it requires monitoring and then the applicant is required to submit to DEQ recommended alert levels (AL) and quarterly discharge limits (AQL) for reserved pollutants. Table 4.2.4 (page 36) indicates that this would only occur 16 years (“[a]t the conclusion 8 rounds of [biennial] groundwater sampling”). In other words, Rosemont is able to contaminate our drinking water for at least 2 years before ROSEMONT is required to recommend a discharge limit.

This is completely inconsistent with APP’s for established mines (i.e. ASARCO Hayden Aquifer Protection Permit #100507), federal law (CERCLA) and Rosemont’s own claims that it will operate in an environmentally sustainable manner.

## Key Points:

- **DEQ's timing on the Rosemont APP is suspect.** Rosemont submitted this permit application in March 2009, almost 3 years ago. The delay in its consideration because earlier submittals by Rosemont were inadequate or provided insufficient information for ADEQ to make a decision.

It is interesting that DEQ released its public notice on this decision over the Christmas/New Years holiday season, which has the inevitable effect of suppressing meaningful public consideration and input. Moreover, the public notice from DEQ indicates that the APP may have to be amended pending the outcome of the Forest Service's NEPA process for the proposed Rosemont Mine. Why is DEQ now rushing this process at the expense of public involvement?.

- **This APP would not require Rosemont to prepare a mine closure plan until 90 days after it notifies ADEQ that the mine would be closing.** Not only should a closure plan be written before a permit is even granted, it makes one wonder how reclamation bonds could be determined without a closure plan being written.
- **There are numerous documents, plans, and compliance features that are not required until long after the permit is granted.** These should all be completed before any permit is granted. For example, point of compliance wells do not have to be in place until 1 year after the permit is granted. See the compliance schedule (page 21 of the draft permit) for more examples.
- **This APP would allow Rosemont to contaminate our drinking water for years before ROSEMONT recommends a discharge limit for dangerous pollutants.** The discharge limit for the reserved pollutants should be set at zero. And having Rosemont propose the discharge limits puts them in the position of being their own regulator.
- **By not requiring a discharge limit, this APP is clearly inconsistent with Arizona law and should have not been proposed for public comment.** The statute (ARS 49-243(B)) clearly states, that ADEQ CANNOT issue the permit unless the applicant "demonstrates" that there will be no violation of aquifer water quality standards.
- **The Best Available Demonstrate Control Technology (BADCT) demonstration is useless without a clear statement of the discharge limits.** It is impossible to know how discharges will be controlled without knowing the quantity of pollutants discharged.

- **There is no reason to wait before proposing discharge limits.** In Arizona copper mining is a mature industry whose environmental impacts are well known. Waiting needlessly compromises our water supplies for future generations.
- **The proposed Rosemont APP is inconsistent with other APP's for established mines in Arizona.** For example, the APP for the ASARCO mine in Hayden contains discharge limits.
- **Rosemont's financial capabilities need closer scrutiny.** There is an investigation pending concerning an apparent lack of financial disclosure by Rosemont's parent company, Augusta Resource. Additionally, Rosemont or Augusta has never operated a mine nor derived any revenues from mineral productions. Consequently, representations about its financial wherewithal need to be thoroughly examined.
- **If Rosemont's hold true to its pledge to be "a bridge to an environmentally sustainable future" it should then voluntarily accept zero discharge to groundwater from its facility.** To do otherwise, provide further indication that their promises are simply PR ploys.
- **Pollutants that would not be covered be discharged limits under the Rosemont APP .**

Below is a summary of the potential health impacts of exposure to the following contaminants in amounts above the EPA's maximum allowed levels.

**Nitrate:** Lack of breath and potentially fatal "blue baby syndrome" in infants (Source: <http://water.epa.gov/drink/contaminants/basicinformation/nitrate.cfm>)

**Fluoride:** Increased likelihood of bone fractures in adults and tooth damage in children. (Source: <http://water.epa.gov/drink/contaminants/basicinformation/fluoride.cfm>)

**Antimony:** Gastrointestinal disorders; decreased longevity; cardiovascular problems; and altered blood levels of glucose and cholesterol. (Source: *U.S. Bureau of Reclamation Antimony Fact Sheet.*)

**Arsenic:** Cancer of the bladder, lungs, skin, kidneys, nasal passages, liver and prostate. (Source: <http://water.epa.gov/lawsregs/rulesregs/sdwa/arsenic/index.cfm>)

**Beryllium:** Intestinal lesions. (Source: <http://water.epa.gov/drink/contaminants/basicinformation/beryllium.cfm>)

**Barium:** Increased blood pressure. (Source: [http://water.epa.gov/drink/contaminants/basicinformation/basicinformation\\_barium.cfm](http://water.epa.gov/drink/contaminants/basicinformation/basicinformation_barium.cfm))

**Cadmium:** Kidney damage. (Source: <http://water.epa.gov/drink/contaminants/basicinformation/cadmium.cfm>)

**Chromium:** allergic dermatitis; potentially carcinogenic. (Source: <http://water.epa.gov/drink/contaminants/basicinformation/chromium.cfm>)

**Lead:** Delayed physical or mental development in children; attention deficits and learning disabilities in children; kidney problems and high blood pressure in adults (Source: <http://water.epa.gov/drink/info/lead/index.cfm>)

**Mercury:** Kidney damage. (Source: <http://water.epa.gov/drink/contaminants/basicinformation/mercury.cfm>)

**Nickel:** Decreased body weight; heart and liver damage; dermatitis. (Source: [www.epa.gov/ogwdw/pdfs/factsheets/ioc/tech/nickel.pdf](http://www.epa.gov/ogwdw/pdfs/factsheets/ioc/tech/nickel.pdf))

**Selenium:** Hair or fingernail losses; numbness in fingers or toes; problems with circulation. (Source: <http://water.epa.gov/drink/contaminants/basicinformation/selenium.cfm>)

**Thallium:** Hair loss; changes in blood chemistry; kidneys, intestines, or liver problems. (Source: <http://water.epa.gov/drink/contaminants/basicinformation/thallium.cfm>)

**Gross Alpha Particle Activity (pCi/L):** Carcinogenic. (Source: <http://water.epa.gov/drink/contaminants/basicinformation/radionuclides.cfm>)

**Radium 226+Radium 228 (pCi/L):** Carcinogenic. (Source: <http://water.epa.gov/drink/contaminants/basicinformation/radionuclides.cfm>)