

White Pine Energy Station DEIS

In response to the proposed White Pine Energy Station DEIS, Utah Physicians for a Healthy Environment and the Wasatch Clean Air Coalition endorse the comments of the Western Resource Advocates, et al, and offers these additional comments: **We would like these to be added to the public record:**

NEPA requires consideration of ALL FEASIBLE ALTERNATIVES. The scope of the DEIS alternatives is limited to one alternative site and the statutory no action alternatives. Other alternatives to the proposed project would also meet the objectives of electricity in the western US and economic development in White Pine County and should have been considered. General statements in ES.2.4 do not satisfy NEPA requirements. The U.S. Department of Energy has invested millions of dollars of public money into development of clean coal technologies. A formal analysis is needed before rejecting these emerging technologies as infeasible. The DEIS clearly states in section 3.6 and 4.6 that there are potential exceedences of visibility standards in Jarbridge Wilderness and Zion N.P. This is unacceptable and design alternatives need to be considered.

We feel that the **WPES** poses a serious threat to the health of Utah residents, especially the one million citizens along the Wasatch front communities of Salt Lake City, Ogden and Provo greater metropolitan areas. This is approximately 150 miles from **WPES**. The cumulative impacts of **WPES** along with several other proposed coal fired power plants were analyzed (Newmont Gold Coal –fired Power Plant, Toquop coal fired pp, Ely Energy Center); but there is no mention anywhere in the DEIS how the health and well-being of Utah residents would be affected by power plant emissions.

The analysis of air pollution is not adequate: The DEIS does not consider PM2.5 even though a federal PM2.5 standard is now in effect and PM2.5 is a criteria pollutant. It is likely that most of the PM emissions from the plant operation will be PM2.5 which travels long distances. PM2.5 limits are lower than PM10 limits but plant PM impacts were compared only to the PM10 standard. The DEIS does not consider coarse PM (2.5-10 micron) separately. Coarse PM is likely to be regulated by EPA during the plant life time.

The DEIS states that “Dispersion modeling demonstrates that acid deposition and visibility standards would be exceeded at Great Basin NP and Ruby Lake NWR. The prevailing winds at the Station site are from the south-southwest, which indicates that air-borne pollutants that could contribute to visibility degradation would travel toward the Tooele location more frequently than the Milford-Delta location.” Again, what about the *Wasatch front communities*?

Why weren't they included in the dispersion modeling? They are only a short distance from Tooele.

The DEIS states that there will be Sulfur dioxide emissions of 6,108 tons per year and Nitrogen oxides emissions of 4,761 tons per year. Sulfur dioxide and nitrogen oxides react with other substances in the air to form acids, which fall to earth as rain, fog, snow, or dry particles. Some may be carried by the wind for hundreds of miles. Acid rain damages forests and crops, changes the makeup of soil, and makes lakes and streams acidic and unsuitable for fish. Sulfur dioxide also accelerates the decay of building materials and paints, including irreplaceable monuments, statues, and sculptures. **We the citizens of Utah don't desire to be in a downwind situation with respect to Nevada air pollution.**

According to Lackson Marufu, PhD Meteorologist in *GEOPHYSICAL RESEARCH LETTERS*, VOL. 31, L13106, doi:10.1029/2004GL019771, 2004

“The August 2003 North American electrical blackout provided a unique opportunity to quantify directly the contribution of power plants to regional haze and Ozone. Airborne observations over central Pennsylvania on August 15, 2003, 24 h into the blackout, revealed large reductions in SO₂ (>90%), O₃(50%), and light scattered by particles(70%) relative to measurements outside the blackout region and over the same location when power plants were operating normally and the visual range increased by >40 km. This clean air benefit was realized over much of the eastern U.S. Reported SO₂ and NO_x emissions from upwind power plants were down to 34 and 20% of normal, respectively. The improvement in air quality provides evidence that transported emissions from power plants hundreds of km upwind play a dominant role in regional haze and Ozone production.”

It seems that Nevada is considering approving Newmont Gold Coal-fired Power Plant, Toquop Coal fired PP, Ely Energy Center and White Pine. Any of these coal fired PP and certainly their combined effect would have a deleterious influence on the health of a million people living along the Wasatch front, which is likely to be non attainment for Pm_{2.5}. It was claimed that White Pine would not be a significant source of ozone based on the ratio of nitric oxide to organic emissions from the plant. This ignores that interaction of plant-emitted NO with organics in smoke from regional forest fires.

Section 3.6.1.1.2 Forest fire emissions contribute significantly to ozone formation in the rural west and the interaction of the plant emissions with regional smoke should be considered.

The lack of on-site ozone monitoring is a serious omission.

The Table 3.6-1 data indicate that ozone at Great Basin NP was at the 8-hr ozone standard in 2002 and nearly every year has reached greater than 95% of the standard. This suggests that any additional ozone precursor sources could result in exceedances at the most impacted point. This is inconsistent with PSD rules. Summer background ozone in the west is already close to the new proposed standard. In summary The DEIS has no modeling data for dispersion of air pollutants and their effect on one million residents that are 150 miles away from proposed plant. These air pollutants have been associated with sudden death, asthma, coronary disease, chronic airway obstruction, lung cancer, prematurity and low birth weight infants. Given that this coal fired plant and others proposed will affect the health and well being of Utah citizens, we feel that added health care costs to Utah residents be included in this DEIS as part of cost benefit analysis.

Toxicity from Mercury is a major concern to the citizens of Utah.

In Section 3.6.1.1.9 The DEIS does not evaluate mercury adequately. No background monitoring for mercury was done. This is a serious omission. Although DEIS states that background concentrations are assumed negligible, this is inconsistent with recent evidence of widespread mercury contamination of water bodies in NV, UT, and across the United States. Forty five states have issued advisories for not eating fish that contain elevated levels of mercury caught in certain lakes, streams and other bodies.

Coal-fired power plants are the largest source of uncontrolled *mercury* emissions, generating 48 tons of mercury emissions per year nationwide. Nearly all of the coal burned in the United States is contaminated with trace levels of *mercury*. Most of this *mercury* falls back down to the earth in rainwater, accumulating in sediment and plants, and then concentrating up the food chain in fish, other wildlife and ultimately, in people. When power plants burn coal, mercury can deposit onto land or water bodies within 50 to 500 miles of its source (oxidized and particulate-bound mercury) or be transported long distances within air masses. Nationally, EPA estimates that 33 percent of total U.S. mercury deposition is from U.S. power plants. It is important to note that this estimate of national deposition obscures the impact of local sources on mercury hot spots, or areas with high levels of mercury deposition.

Mercury deposition is already a problem in Utah. *Mercury* deposits where ground level ozone is high and salt is prevalent, conditions common at the Great Salt Lake. The U.S.G.S. and Fish and Wildlife Service researchers

studying the Great Salt Lake have found alarmingly high levels of *mercury* in the water and in birds that feeds on the lake's brine shrimp. Concentrations of methyl *mercury*, the element's organic and most poisonous form, were some of the highest ever found in an inland waterway, exceeding 25 nanograms per liter of ***Great Salt Lake*** water. For comparison, fish consumption warnings in the Florida Everglades were posted when water there was found to have 1 nanogram per liter. People swim in the GSL . Utah is the only state with mercury advisories for waterfowl. In 2005 Northern Shoveler and Cinnamon Teal advisories were issued; in 2006, the Common Goldeneye was added to the list.

The Utah Department of Environmental Quality has issued several rounds of advisories for elevated levels of mercury in trout. Rivers and lakes in Northern and Southern Utah are already contaminated with mercury, prompting warnings about eating these fish.

All of the fish samples that the EPA tested from the nation's lakes and rivers in the 1990s were contaminated with mercury. The mean *mercury* concentration of the 520 fish samples was 0.22 ppm, or nearly twice EPA's safe limit for women of average weight who eat fish twice a week. 100% of fish samples collected in Nevada exceeded safe *mercury* limit for women. Carson River and Lahontan Reservoir in Nevada currently have *mercury* advisories.

In Feb, 2004, The EPA's top *mercury* scientist has found that 630,000 American children, one in every six, are born each year with potentially unsafe levels of *mercury* in their blood.

In March 2001 the Centers for Disease Control and Prevention issued a report on mercury. While "average" blood mercury levels among women were not of concern, the data indicates that in fully 10 percent of American women (roughly 7 million women of childbearing age) *mercury* levels were above the level that may put a fetus at risk for adverse nervous system effects. These women surely don't need more mercury in their system, least of all if they are already pregnant or nursing.

Additional research, reported in 2004 by the EPA, concluded that unborn children have much higher levels of mercury in their blood than their mothers do. As a result of these findings, EPA had to double the number of babies it estimated were born each year with unsafe levels of mercury to 630,000.

Mercury is also currently being investigated as a possible contributor to autism. The incidence of autism has increased 10-fold from 6 in 10,000 in the 1980s (Blaxill 2004), to about 60 in 10,000 today. In the longer term, the solution is to halt mercury pollution from coal-burning power plants and other sources so the contamination of fish is avoided in the first place.

In March, 2005 attorney generals from nine states filed a lawsuit challenging a federal Environmental Protection Agency (EPA) rule that they allege fails to

protect the public from harmful *mercury* emissions from coal-fired power plants, which they say pose a grave threat to the health of children. The suit challenged an EPA rule that removed power plants from the list of pollution sources subject to stringent pollution controls under the federal Clean Air Act.

Because **there is no data whatsoever on cumulative impacts from mercury emissions at White Pine and other proposed coal fired power plants and from the large Nevada gold mines**, there is good reason to assume that the State of Nevada and its Dept of Environmental Protection would be vulnerable to similar litigation if these coal powered plants were approved.

Global warming

Coal-fired power plants are a major source of the carbon dioxide emissions that are causing climate change which is threatening the very existence of our planet. In addition to White Pine, there are **cumulative impacts** from other plants-Newmont Gold Coal –fired Power Plant, Toquop coal fired pp, Ely Energy Center. The DEIS didn't consider that 14 coal fired pp are being considered for the Southwest. Carbon dioxide emissions for these plants would total 70 million tons each year, more than a 40% increase over the region's current burden from the same sector. White Pine's projected CO2 emissions are 5,500,000 tons per year. Ely Energy Center is projected to emit 12,600,000 tons per year of CO2. This would be the largest source of greenhouse gas emissions among the new coal fired pp. If the more than a dozen coal-fired power plants planned for Arizona, Colorado, Nevada, New Mexico and Utah begin operating, they would emit global warming pollution equivalent to the tailpipe exhaust of 12.5 million cars driving around the Southwest for a year. New plants, if built with conventional technology, will continue to pollute the atmosphere for decades. The White Pine Plant, if built, will be a polluting "dinosaur" for many years to come.

Coal is not the only local resource that can be used to meet the Southwest's growing power demand. The region is rich in renewable resources including solar, wind, biomass and geothermal energy sources. Energy efficiency is perhaps the most overlooked energy resource. The Southwest Energy Efficiency Project has concluded that available and proven energy-efficiency measures that could be implemented in the next 15 years could entirely eliminate the need for twenty-six 500-MW power plants in six western states.

California law precludes California cities and power companies from buying electricity from new coal plants that fail to address global warming. In April 2007 the Supreme Court ruled that the EPA violated the Clean Air Act because of its refusal to regulate greenhouse gases with regard to new vehicle emission standards.

In summary, air pollutants from White Pine have been associated with sudden death, asthma, coronary disease, chronic airway obstruction, lung cancer, prematurity and low birth weight infants. Given that this coal fired plant and

others proposed will affect the health and well being of Utah citizens, we feel that added health care costs to Utah residents should be included in this DEIS as part of cost benefit analysis.

Because of many reasons outlined above the DEIS is completely inadequate in addressing air pollution, added health care costs, global warming, and mercury toxicity.

We, the citizens of Utah, don't desire to be the recipient of air pollution from Nevada.

Copies of this letter have been sent to the Nevada Div of Env. Protection, Senator Harry Reid, Nevada Governor Jim Gibbons, Utah Gov Jon Huntsman Jr.

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