

Center for Environmental Equity

CEE protects public land, local watersheds, and wild places from degradation by mining and other toxic releases

Note from the Director



CEE Director Larry Tuttle

During the past two decades, I often considered inventing a hypothetical mine to illustrate the absurdities and perils of the 1872 General Mining Law. Reality now makes this effort unnecessary. On September 13, 2011, Oregon Energy -- wholly owned by an Australian corporation -- disclosed plans to mine uranium on federal public land in Southeast Oregon.

This newsletter describes the Oregon Energy's Aurora Project, an open-pit uranium mine located on 272 mining claims on BLM land. Sulfuric acid and other chemicals will be used to extract uranium from crushed ore to produce a concentrate known as yellowcake. Both liquid and dry tailings will be stored on site.

Company officials estimate that Aurora's capacity is 30% of U. S. domestic production, most of which will be exported to China, Russia, South Korea, and India. Neither federal nor Oregon treasuries will receive

severance taxes or royalties for the minerals removed.

For communities as diverse as Moab, Utah, and Jeffrey City, Wyoming (often called yellowcake towns), the effects of uranium mining on public services and resources; ground and surface water; and, air quality are serious and dramatic. Cleanup at the Lucky Lass uranium mine in Lake County, Oregon, has spanned more than two decades; costs exceed \$30 million. In November 2011, Newmont Mining reached a \$194 million settlement to cleanup uranium contamination at the Midnight Mine site near Spokane, Washington.

Oregon Energy may file a formal notice of intent to mine as early as December 2011. CEE will insure rigorous application of all state and federal laws, particularly the Oregon Chemical Process Mining Law. (See pages 2-3). The Aurora application is also an opportunity to reinvigorate 1872 Law discussions with the public and media -- a foreign company mining public land using chemical extraction to produce and export the raw material for nuclear power and weapons.

Aurora Project Quick Facts Profile

Project:	Open pit, chemical extraction uranium mine located in Southern Malheur County approximately 25 miles north of the Nevada state boundary.
Facilities:	Roads, open pits, milling facilities, and tailings impoundments (liquid and dry) located primarily on 1,700 acres encompassing 272 unpatented public lands mining claims.
Output:	Yellowcake (estimated to be 30% of U.S. domestic production) primarily for export.
Project Status:	Exploration permit issued December 2010. Notice of intent to mine pending.
Developer:	Oregon Energy LLC filed Oregon incorporation documents in March 2010. Oregon Energy is 100% owned by Energy Ventures Limited (EVE), a Perth based Australian company incorporated in 2003.

Aurora Project: CEE breaks down the production, oversight, and impact of a proposed yellowcake uranium mine in Southeastern Oregon

The Aurora Project is a proposed open-pit uranium mine located on approximately 1700 acres of Bureau of Land Management (BLM) land in remote Southeast Oregon. For nearly a century, the Aurora project area has been explored and mined for mercury, gold, and uranium.

Uranium ore will be processed on-site to produce concentrate known as yellowcake. Pits, roads, processing facilities, and support activities will be located on 272 unpatented lode claims (20 acres each) pursuant to the General Mining Law of 1872 (1872 Law). Company officials estimate that Aurora will produce 30% of U.S. yellowcake output.

Yellowcake Production

Uranium ore mined from open pits is crushed at an on-site mill. The crushed ore is treated with acids (primarily sulfuric acid) and other chemicals to leach uranium from ore. The product is a sand-like powder -- uranium oxide concentrate -- called yellowcake. Yellowcake is shipped in 55 gallon drums for further refinement. (See diagram.) China, South Korea, India, and Russia are the principal end markets.

Chemical processing of uranium to produce yellowcake uses large quantities of water and produces a large waste stream. (Oregon Energy has not disclosed water and electricity sources and volumes.)

Generally liquid waste is about twice the quantity of solid waste. Liquid waste is discharged to ponds and solid waste to piles, collectively called tailings. Tailings contain the original constituents of crushed uranium ore; processing acids and chemicals; and, heavy metals.

Sulfuric acid leaches heavy metals -- mercury, molybdenum, arsenic, lead, manganese, and cadmium -- as well as uranium. (The Aurora site has been extensively mined for mercury.) Residual uranium elements decay and release radon; heavy metals interact within tailings and other wastes.

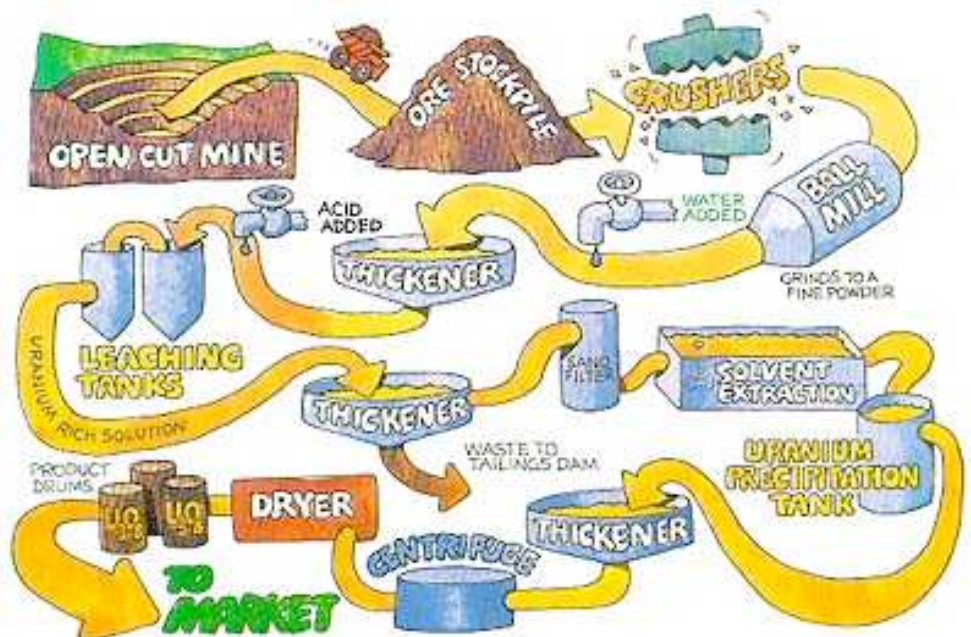
Approvals, Permitting, and Regulation

The principal elements for Aurora approvals, permitting, and regulation follow:

1872 General Mining Law - The law allows claimants and claim owners, foreign and domestic, exclusive access to federal public domain lands for the purpose of locating and removing minerals. Mining claims constitute private property rights and are a dominant use not subject to federal agency land use plans.

BLM - Aurora is located on public domain lands managed by BLM. BLM will prepare an environmental assessment or environmental impact statement as required by the National Environmental Policy Act (NEPA). The NEPA process will evaluate the proposed Aurora plan of operations (POO). BLM may require modifications to the POO "to prevent unnecessary or undue degradation on the federal lands." Unnecessary or undue are not defined by federal regulations.

BLM does not issue permits to carry out mining activities on public land. Under existing public lands mining law, BLM may neither deny a POO nor condition a POO approval on the operator securing permits from other agencies. If a Clean Water Act (CWA) permit is required, for example, BLM may not withhold approval of the Aurora POO pending CWA permit approval.



Similarly, BLM does not have direct enforcement authority to regulate mining operations on public land claimed pursuant to the 1872 Law. Miners operating in conflict with an approved POO are issued a notice of non-compliance. Because BLM does not issue a permit, BLM has the burden of proof when seeking judicial enforcement if an operator fails to comply.

State of Oregon - The Oregon Chemical Process Mining Law (CPML) applies to Aurora. Following the CPML enactment in 1991, cooperating agencies -- the Oregon Department of Geology and Mineral Industries (DOGAMI), Oregon Department of Environmental Quality (DEQ), Oregon Department of Fish and Wildlife (DFW), Oregon Water Resources Department (WRD) -- developed comprehensive administrative rules implementing the law.

The CPML is triggered by a notice of intent. Cooperating agencies are notified and a coordinated application process is initiated. Unlike BLM, the State of Oregon is not obligated to approve an application for chemical process mining; chemical process mining permits are revokable.

The right of the State of Oregon to regulate mining and to deny a permit to carry out mining activities on public land was confirmed by the landmark case *Kinross Copper Corporation v. State of Oregon* decided by the Oregon Court of Appeals in 1999. Kinross petitions for review were denied by both the Oregon State Supreme Court and the United States Supreme Court.

Oregon Energy Facility Siting Council (EFSC) - Because Aurora operations involve facilities for the milling and production of uranium ore and products, EFSC laws and regulations apply to Aurora. Oregon Energy has suggested that an memorandum of agreement (MOA) or statutory changes may be necessary to carry out a consolidated permitting process between EFSC and state cooperating agencies.

U.S. Department of Energy (DOE) - DOE administers the Uranium Mill Tailings Radiation Control Act (1978) regulating disposal, stabilization, and control of uranium mill tailings.

U.S. Environmental Protection Agency (EPA) - EPA has delegated authority to the State of Oregon to administer the Clean Water Act (CWA) and Clean Air Act (CAA). EPA retains the authority to review and intervene in permits proposed and issued pursuant to

the CWA and CAA. Because uranium mining tailings and overburden are classified as Technology Enhanced Naturally Occurring Radioactive Material, EPA has an additional oversight role.

Revenues and Taxes

Neither the federal government nor Oregon receive royalties or severance taxes based on the value for hard rock minerals -- including uranium -- removed from public lands.

Depletion Allowance and Gross Revenue Deductions - The federal tax code -- and by extension the Oregon revenue code -- allows federal lands claim owners to deduct a fixed percentage of gross income (or alternatively actual costs) annually for as long as the a mine generates income. The uranium depletion allowance is 22% and may be taken even after the claimant has exhausted the resource and/or recovered the actual investment. (IRS Publication 535.)

Property Taxes - The Oregon Department of Revenue has determined that Oregon statutes limit real property taxes related to mining claims to buildings. Unlike most other Western States, Oregon excludes from taxation improvements such as roads and paving; pits and ponds; wells, water systems, and storm water collection facilities; fences, security, and fire protection; and, power distribution facilities.

Oregon Energy Community Economic Projections

Oregon Energy projects the following jobs benefits for Malheur County and the project area: 250 direct construction jobs; 150 permanent jobs; 450 indirect jobs; and, opportunities for local businesses to provide goods and services to the mine.

Oregon Energy's economic benefit projections are common for major mining operations throughout the West. These economic benefits rarely materialize: 1) mining operations like Aurora are located in isolated communities with few skilled workers and businesses capable of providing mining operations with specialized equipment, products, and services (the nearest community to Aurora has a population of 150); 2) workers and families often do not relocate and when they do relocate rarely make long-term investments such as purchasing homes; 3) when families relocate, communities must spend significant resources for infrastructure such as schools; and, 4) the least-skilled workers often remain behind when mines close.

Black Butte Mine Superfund site added to CEE's Abandoned Mine Project

CEE has added the Black Butte mine to its Abandoned Mine Project. EPA declared Black Butte a Superfund site on March 10, 2010. An excerpt from EPA's press release follows: "Mine waste at the abandoned Black Butte Mine site created a toxic legacy by leaching mercury, arsenic and other contaminants into creeks flowing into Cottage Grove Reservoir, a popular site for fishing, swimming and boating. Elevated mercury concentrations in reservoir fish have prompted fish consumption advisories in order to protect public health."

More than 50% of Oregon's population lives in the Willamette River watershed downstream from Black Butte. The Oregon Health Authority (OHA) has issued warnings about both eating fish from the watershed and potential effects of arsenic on residential water wells. By year-end 2011, OHA will issue a formal report on Black Butte human health perils.

The history of the abandoned Black Butte follows a familiar script: 1) the land owner refuses to cleanup the site; 2) the State of Oregon has neither the interest nor the resources to pursue a comprehensive cleanup; and, 3) EPA ultimately adds the site to the NPL. To date, EPA has taken no action at the site and has not assigned a project coordinator.

CEE's objective is to create sufficient local, state, and national attention to secure appropriations to remediate Black Butte heavy-metal pollution. Significant beneficial interim and collateral outcomes can also be attained:

- a) raising awareness about the seriousness of eating fish from Cottage Grove Reservoir and similar waterbodies;
- b) demonstrating the effects of cumulative heavy-metal water quality degradation;
- c) highlighting fiscal impact on local governments; and,
- d) raising awareness about deficiencies in laws governing mining operations and water quality.

Donated Gold Reaches \$3,000 Mark

Donated "scrap" gold -- unused, unwanted, and orphaned gold items -- has yielded more than \$3,000 for CEE's mining advocacy. Buyers purchase gold jewelry -- regardless of condition -- such as bracelets, chains, rings, watches, pins, and earrings (singles or pairs).

Other examples are gold coins, nuggets, gold dust, and dental gold and crowns. Value depends on purity. (24-karat gold is 100% pure; 12-karat gold is 50% pure.) Current gold prices exceed \$1,600 per troy ounce.

If you have gold you wish to donate, simply mail to our secure Post Office Box 40745, Portland, Oregon 97240, or we can arrange a pickup. All donations will be acknowledged.

About this NEWSLETTER and your SUPPORT...in June and December we mail a combined newsletter and invitation to support CEE's activities. Broad based support, rather than a few large contributions, guarantees aggressive advocacy, stability and independence.

If you are planning a TAX DEDUCTIBLE donation...you can support CEE by making your check payable to our fiscal sponsor, the Oregon Wildlife Federation (OWF). This partnership allows CEE to use more of its resources for public education and public information and less for administration.

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