
The Satisfying Energy Needs and Saving the Environment (SENSE) Act

REPRESENTATIVE **KEITH ROTHFUS** (PA-12)

Protecting the environment by fueling the vital remediation of coal refuse sites

WHAT IS COAL REFUSE?

Decades of mining activity in the United States have left behind piles of “coal refuse” (also called “waste coal”). These piles consist of lower quality coal mixed with rock and dirt. Historically, coal could not be efficiently separated from these various other materials. As a result, billions of tons of coal refuse were piled across the coal regions over many years. Much of it was later abandoned, leading to a variety of adverse impacts on the environment including unstable land, the loss of vegetation and wildlife, air pollution, and concentrated levels of acid mine drainage (AMD) into streams and rivers.

AMD from remaining abandoned coal sites and legacy coal-refuse piles is a major source of water pollution, with over 3,300 miles of streams being impacted in Pennsylvania alone.

Advanced technology known as circulating fluidized bed (CFB) combustors has enabled the private sector to remove, process, and burn coal refuse with limestone to generate electricity to pay for this remediation and reclamation.

WHY ARE COAL REFUSE PLANTS IMPORTANT?

The coal refuse to energy industry is vital to supporting the otherwise cost-prohibitive remediation of coal refuse sites. These facilities use material from historic coal refuse piles to generate electricity. The leftover beneficial ash is then used to remediate and restore these affected areas to productive uses or to reclaim abandoned mine lands.

This effort also eliminates and prevents air pollution from the uncontrolled burning of these piles that occurs occasionally. To date, this approach has been used to reclaim thousands of acres of previously-damaged land and streams, saving taxpayers millions of dollars in potential cleanup costs.

In Pennsylvania alone, the Department of Environmental Protection has estimated costs to address abandoned mine lands to be approximately \$16.1 billion dollars with approximately \$2 billion of that amount needed to address coal refuse piles. Pennsylvania coal refuse-fired plants have removed 214 million tons of coal refuse and contributed to the remediation of many formerly polluted sites. These efforts also reduce costs to state and local governments to address the environmental, health, and safety concerns caused by coal refuse piles.

Before and after aerial photos of remediation at the Ebensburg Power Project (Revloc, PA)



Reclamation activities at the Revloc site have led to the restoration of aquatic life to approximately 6 miles of the South Branch of Blacklick Creek. Three million tons of coal refuse was removed and about one million tons of coal refuse was remediated on-site using beneficial use ash from a coal refuse-fired power plant. This resulted in a 93% reduction in acidity, and a 92% reduction in iron, a 71% reduction in manganese, and 95% aluminum levels from the site's surface water discharge to the creek.

WHY DO WE NEED THE SENSE ACT?

Coal refuse-fired power plants face a number of challenges from market forces and the high compliance costs of certain federal regulations. In particular, the Mercury and Air Toxics Standards (MATS) Rule and the Cross-State Air Pollution Rule (CSAPR) pose a significant challenge to the continued operation of coal refuse-fired power plants and the beneficial environmental remediation that they support. The SENSE Act seeks to fairly resolve these issues, while continuing to hold these facilities to a strict environmental standard.

- **MATS:** While all coal refuse-fired plants can meet the mercury standard under MATS, most of these facilities cannot meet the rule's acid gas standards for hydrogen chloride (HCl) or its surrogate sulfur dioxide (SO₂). The SENSE Act seeks to establish an additional alternative compliance standard for coal refuse facilities based upon the removal and control of SO₂.
- **CSAPR:** CSAPR is a market-based rule to address the transport of precursors of fine particulate matter (PM_{2.5}) and ozone. It establishes annual emissions budgets for SO₂ and other pollutants. While coal refuse-fired power generators were allocated sufficient credits under CSAPR in Phase I of the rule's implementation, they were allocated insufficient credits in Phase II, which is set to begin in 2017. The SENSE Act seeks to provide these facilities with the same SO₂ allocations in Phase II as in Phase I. It also contains provisions to ensure that this policy does not increase the overall state-level CSAPR SO₂ budget.

KEY PROVISIONS OF THE SENSE ACT:

- The SENSE Act specifically focuses on facilities that use coal refuse derived from bituminous coal. Because anthracite coal refuse has lower sulfur content, anthracite coal refuse-fired facilities are better able to comply with MATS and CSAPR than bituminous coal refuse-fired facilities.
- Maintains Phase I unit-specific CSAPR SO₂ emissions allocations for covered plants under Phase II, which begins in 2017.
- Ensures that, in maintaining Phase I level CSAPR allocations under Phase II, overall state emissions budgets are not increased.
- Prevents operators of individual coal refuse plants from transferring any unused CSAPR allowances to other facilities.
- Allows unused CSAPR allowances to be “banked” for future compliance periods, but requires the surrender of those banked allowances if a plant permanently retires or switches fuels.
- For the purposes of complying with MATS, an operator of a coal refuse-fired facility may elect to comply with one of two alternative HCl standards or one of three alternative SO₂ standards outlined in the bill.

EXISTING COAL REFUSE FACILITIES:

While coal refuse piles persist in many communities in historic coal mining regions, the SENSE Act seeks to ensure that the following endangered bituminous coal refuse plants can continue their beneficial work:

1. Cambria Cogeneration Company (PA)
2. Colver Power Project (PA)
3. Ebensburg Power Company (PA)
4. Gen-On (PA)
5. Scrubgrass (PA)
6. American Bituminous Power Partners (WV)
7. Morgantown Energy Associates (WV)
8. Rosebud (MT)
9. Sunnyside (UT)