

Watsonville-area plant would turn trash into energy

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A Southern California firm has applied for permits with the Monterey Bay air board to run a trash-to-energy plant in Santa Cruz County, setting in motion what will be a curious, if not contentious, effort to bring an unprecedented waste technology to the Central Coast.

Carlsbad-based AdaptiveARC hopes to showcase so-called plasma-arc gasification at the Buena Vista Landfill just outside Watsonville. The test project would use temperatures as high as 3,000 degrees to break down municipal waste and convert it into fuel for electricity and, according to company representatives, virtually eliminate the county's need for another landfill.

But the technology remains unproven, at least in this country, and concerns about its viability, and to some extent its safety, have surfaced since talk of the plant emerged in April. The county's intent to contract with AdaptiveARC, originally slated for June, has been postponed so more research can be done, county officials said this week.

Kris Skrinak, a managing partner of AdaptiveARC, said reservations are natural with anything new but he expects his company's proposal to hold up to further examination. "I'm convinced that we're going to leave an Earth-healing legacy," he said.

Plasma-arc gasification, say its advocates, is not to be confused with traditional incineration and essentially vaporizes trash without harmful emissions.

The process applies heat in the form of electrified gas, or plasma, to waste, turning the organic materials into a synthetic fuel for electricity and the inorganic materials, such as metal, into an ash or slag residue that can be used in asphalt and concrete.

Skrinak's proposed project would employ plasma-arc gasification at a trailer-sized plant at the landfill and would include generators for converting the synthetic fuel into electricity on site. The facility would handle about a third of the county's 600 daily tons of trash — what's not recycled — and could be scaled up in the future, according to Skrinak.

AdaptiveARC has offered the \$15 million demonstration facility at no cost to the county and would operate it for a yet-to-be-determined period of time. They hope to use the test project to market future facilities.

In April, the county Board of Supervisors gave the Public Works Department direction to move ahead with the offer, sensing there was little to lose.

But a number of critics have since surfaced saying that's not the case.

Energy watchdog Greenaction for Health and Environmental Justice says claims made by AdaptiveARC are, at best, untested and, at worst, distorted to disguise harmful emissions. "There's a potential threat to health and the environment," said Greenaction Executive Director Bradley Angel. "They're proposing to make the residents of Santa Cruz County, particularly the Watsonville area, the guinea pigs."

The group was among those who have asked the county to do more homework before committing to a gasification facility.

AdaptiveARC acknowledges trace emissions of such compounds as nitric oxide, carbon monoxide and sulfur dioxide but say they fall within state guidelines.

The company's application to the Monterey Bay Unified Air Pollution Control District was filed last month and regulators are still reviewing it. "I've had a lot of people come into my office and say my project will have zero emissions," said Lance Ericksen, manager of the air board's engineering division. "We're pretty skeptical if people say that."

That skepticism, Ericksen said, will translate into rigorous review, something that's made more difficult, but not impossible, by not having a working operation to study. "Usually people have done smaller-scale work and we can work with that in our calculations," he said.

AdaptiveARC has employed gasification technology in Mexico, which company representatives say will help address questions about the project here.

Plasma-arc facilities have been used on a small-scale basis and to address limited types of waste, but none are currently handling municipal trash in the United States. Several cities in California, including Sacramento and Los Angeles, are also looking into the technology.