

Project Objective:

The primary objective of the project was to find a containment solution that would prevent fuel contamination resulting from spills and overflows from outdoor home heating fuel tanks. In addition, educating the community members about the health and environmental hazards associated with fuel spills was a vital task.

Results:

The Kongiganak Traditional Council researched containment solutions and with this project, successfully installed 17 ENPAC Single Poly Rackers at homes in the community. They provided education about the risks fuel spills pose to the land, air, and health in their Tribal Environmental newsletter. Since the installs in June, 1 fuel overflow, and 1 fuel leak were reported, but the Poly Rackers did what they were supposed to do, catching the fuel before it hit the ground. The tribe plans to continue pursuing other funding options and partnerships in an effort to install Poly Rackers at all of the remaining homes in the village. The feedback about the Rackers from the community has been positive and the people that didn't receive them during this project are requesting them. All of the laborers hired to install the Poly Rackers were provided with gloves, tyvek suits, safety glasses, and masks to keep them safe. Absorbent pads were used to clean-up of minor existing spills and to protect the ground from new spills during the installs.

Benefits:

- Improved environment.
- Minimized risk of fuel spills in the community.
- Community members have a greater awareness of the negative impacts associated with fuel spills.
- Local and regional partners are more aware of this common issue.

Lessons Learned:

- **Make sure the quotes you're requesting are for the right item.** Once the project started, it was realized that the quote received before the grant was written was for the wrong product. It turned out that for the correct item, the item cost and the shipping costs went up astronomically. Instead of providing Poly Rackers to 50 homes as originally planned, the funding only ended up covering enough for 17 homes.
- **Your full order might not show up all at once.** It's important to count your inventory when it arrives on the barge because it isn't unusual for something to be missing. Be ready to go on the hunt as quickly as possible after your inventory arrives. The longer it takes for you to realize something's missing, the longer it'll take for you to track it down.

For more information:

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ANTHC project website: <http://www.anthc.org/chs/ces/hve/community-environmental-demonstration-grants.cfm>

KONGIGANAK TRADITIONAL COUNCIL



Heating Fuel Spill Prevention Project



Funding provided by ANTHC through the Community Environmental Demonstration Grant
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* PROJECT TIMELINE *

2012 Community Environmental Demonstration Project Grant

Work performed before February 15, 2012

- Spills from home heating fuel tanks was identified as a concern and put on a list of community priorities in 2004.
- Conducted community education about the hazards spilled petroleum has on the land, health, and the environment as a whole.
- Researched various containment options for home heating fuel tanks (55 gallon drums).
- Identified desired containment method and requested quotes.

Received CEDP funding from ANTHC

Placed an order for 17 ENPAC Single Poly Rackers from Inlet Petroleum Company in Anchorage to be shipped directly to Kongiganak from Seattle on the first spring barge.

Identified homes that would receive the Poly Rackers.

Received 16 of 17 Poly Rackers on the barge. 1 could not be located.

Ordered safety gear for labor crew.

Began installing Poly Rackers.



No Containment Before

Containment After Poly Racker Install



Feb. '12	March '12	April '12	May '12	June '12	July '12	Aug. '12	Sept. '12	Oct. '12	Nov. '12	Dec. '12	Jan. '13
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Realized that the original quotes were for the wrong product. Requested new quotes from Inlet Petroleum on the correct product. Requested updated shipping quotes too.



Developed an article for the tribe's quarterly environmental newsletter to educate the community about the hazards and dangers of diesel fuel.

HAZARDS AND DANGERS OF DIESEL FUEL
 "Leaking fuel tanks are a top environmental hazard in Rural Alaska"

HAZARDS: Diesel fuel is a highly combustible petroleum. It is used as a burning fuel, this chemical must be stored, transported and handled with care to avoid risk of exposure to flame and sparks due to risks of fire or explosion with situation that can result in property damage, physical injury and even loss of life. **Environmental Impact:** Diesel fuel is a chemical that negatively impacts the environment both during and after its consumption. Liquid diesel is poisonous and when spilled or leaked outdoors, threatens plant and animal species, particularly aquatic life, that comes in contact. **Irritant Potential:** Diesel fuel is a skin and eye irritant that can cause rashes and reactions when exposed to human skin. Long-term exposure to diesel is also connected to skin cancer and disorders the central nervous system. Fumes released can cause dizziness and drowsiness and even fainting. Swallowing the liquid can cause sickness or chemical pneumonia.

Hired 4 local laborers to build platforms and install Poly Rackers.

DANGERS: Diesel exhaust contains carbon monoxide which is known to be toxic. **Breathing:** Those who breath in a lot of diesel exhaust have a increased risk of a lung cancer. There is also risk of non-cancerous breathing conditions, especially asthma. Inhaling diesel exhaust can lead to cold-like symptoms such as runny nose and watery eyes. It also has been linked to nausea and other stomach ailments, headaches, light-headedness and heartburn has been reported.

Located the last Poly Racker in Bethel, received it, and installed at the final home.



Old, exposed area now protected

Developed a resolution supporting the install of Poly Rackers at all remaining homes in the community. It's currently awaiting tribal approval. If approved, it will be submitted to AVCP, the local regional housing authority.



"Once the Poly Rackers were installed, there was an overflow at one household, but the Racker did its job, containing the spill and saving the ground from contamination."

~ Roland Andrew, Environmental Coordinator