'Difficult' people just plain awful

The Autocratic Dictator

By Cindy Skrzycki
The Washington Post

WASHINGTON — Do you recognize this person?

The Autocratic Dictator. Someone who stays in control by putting other people down. A person who is quick to anger, doesn't like ambiguity and is unwilling to entertain other people's ideas. The message from this type is, "Do it my way, or I'll humiliate you."

The Back Stabber or Sniper. Attacks from behind. Pretends to have done nothing. Says things about you to co-workers that are part true and part false. Uses put-downs, digs, criticisms and rumor.

The Tight Lip. Won't offer information when you try to discuss something. Answers in monosyllables: "Yep," "nope." Shrouds self in mystery so you can't figure out the reason for the silence. A master at creating uncomfortable silences.

Meet three subsets of the Difficult Person, who might be the boss, a co-worker, secretary or supervisor.

METHANOL

Fuel- Methanol is a clear liquid fuel, formed by binding an oxygen atom to a methane (natural gas) molecule.

Technology- Similar to gasoline technology. However, an engine must flow twice as much methanol as gasoline for the same power. Some components must be altered to prevent corrosion.

Performance- Produces more horsepower from a given engine than gasoline.

Technical obstacles- Reduction of aldehyde emissions. Development of economical fuels sources.

Capital cost- $200-$300 additional for a production vehicle. $1,000 + to retrofit an existing vehicle.

SOLAR

Fuel- Uses high-tech solar photovoltaic cells to convert light energy into electric energy.

Technology- High technology solar cells are connected to high efficiency motors. Vehicles are built of lightweight composite fibers.

Performance- Very low power (1.3 horsepower). However, can propel lightweight vehicles at speeds of 50mph for short stretches.

Technical obstacles- Need more efficient, lower cost solar cells and composite materials. Need lighter batteries.

Capital cost- $30,000-$100,000 for prototypes. $30,000-$50,000 for production vehicles.

NATURAL GAS

Fuel- Natural gas is a mixture of gases, but is primarily methane.

Technology- Natural gas is stored at high pressure (3,000 psi). Fuel delivery systems reduce this pressure and meter the fuel to the engine. Fuel can also be stored as a liquid in insulated cryogenic tanks.

Performance- Unoptimized engines have less power than gasoline engines. Optimized engines have equivelant power.

Technical obstacles- Need lighter, lower cost storage tanks. Need more precise computer controlled fuel delivery systems.

Capital cost- $1,000-$1,500 additional for a production vehicle. $2,000-$3,000 + to retrofit an existing vehicle.

The Denver Post /Lyn Alwe

THE LINEUP: Showing off CSU's methanol, solar and natural gas cars are, from left, Don Radford, students Brad Schuetz and Bradley Cohen, and Bryan Willson.

Young minds 'fuel' CSU program

By John Eaton
Denver Post Staff Writer

While many only fret about the environment and how to improve it, there's an elite group of educators and students at Colorado State University that is doing something about it.

And they are doing it on a shoestring compared to other universities — by utilizing everything from young, fertile and open minds to borrowed parts from a kitchen microwave oven.

For the past three years, CSU quietly has hung a lot of "ribbons" on its walls, testimonials to the school's successful program involving alternative fuel vehicles that will carry us from the 20th into the 21st century — and, hopefully, help cure the world's smog woes.

About 140 students have worked over a three-year span on three separate programs to design, build and then compete with custom vehicles powered by methanol, solar heat and compressed natural gas (CNG).

The school's race or rally competition record is impressive, and students have come up with innovative ideas that have triggered new thought among manufacturers.

"This is a perfect example of fermenting young minds," says Bryan Willson, assistant professor of mechanical engineering. "They have no boss looking at them. And they do a lot of things because they don't know it can't be done."

In the three races involving special vehicles powered by CNG, methanol or solar

Please see CSU on 5C