

Eco-friendly fridge clearly has drawback

November 1 2010, By Sandy Bauers

GE is introducing a super-eco refrigerator, and I predict some versions will be a hard sell. Not because the fridge isn't an ecological breakthrough. It is.

And many more like it are in the pipeline.

Instead of using ozone-depleting hydrochlorofluorocarbon (HCFC) refrigerant -- the norm in the United States -- the fridge uses the chemical isobutane.

It has been widely used in household refrigerators in Europe and Asia for years.

But not here.

Over the history of refrigeration, we have been through a series of refrigerants, none too cool, eco-wise.

The first ones, which were used in early refrigerators in the 1920s, were flammable and toxic.

Next came chlorofluorocarbons (CFCs), which were inert and nontoxic. But released into the air, they migrated into the stratosphere.

That's where the [ozone layer](#) is. It protects life on Earth by absorbing harmful [solar radiation](#). The sunlight hits an oxygen molecule, which has two oxygen atoms, and breaks it apart. The oxygen re-forms as ozone,

which has three atoms.

Scientists eventually determined that CFCs thinned the ozone layer, breaking apart the molecules. They referred to a giant hole in the ozone. It was mostly over Antarctica, but it existed elsewhere, too.

Health officials warned of increased risk for skin cancers and cataracts. Suntan lotion morphed into sunscreen, and sunglasses were elevated from a fashion statement to a health device.

The hole became an iconic symbol of [environmental degradation](#), on a par with Love Canal and the Exxon Valdez.

Then along came HCFCs. They were less harmful, but still thought to deplete the ozone. Just not as much.

In 1987, world policymakers agreed to phase out the chemicals over time -- the Montreal Protocol.

It was also discovered that HCFCs were potent [greenhouse gases](#) -- far worse than carbon dioxide -- that contribute to global warming.

Environmentalists have high hopes for new alternatives including isobutane, which is used in camp stoves and cigarette lighters.

Greenpeace in particular has been pushing for this alternative for the better part of two decades.

Research director Kert Davies said he was "eagerly awaiting" its arrival in the United States. Although the ultimate fridge has not yet been designed, "we're headed in a good direction," he said.

The new ones hold the additional promise of being more energy

efficient, he said.

They'd better be. In September, the U.S. Department of Energy announced new refrigerator energy standards. Starting with 2014 models, most refrigerators will need to be 25 percent more energy efficient.

All that's required now for isobutane is final EPA approval, which GE expects or it would not be announcing the refrigerator in its 2011 lineup, due in stores early next year.

GE has applied for the approval under the EPA's "SNAP" program -- for Significant New Alternatives Policy. SNAP evaluates alternatives to substances that are being phased out under the Clean Air Act as a way to protect the ozone layer.

An EPA spokeswoman said the agency has proposed acceptance of isobutane, but hasn't made a final ruling.

But presumably, here it comes: GE's refrigerator will be 30 inches wide and 80 or 84 inches high, for a volume of 14.1 or 14.3 cubic feet.

It will have better insulation and super-efficient LED lighting.

The suggested retail price ranges from \$6,249 to \$6,749. Quite steep, but that's not why I'm aghast, either.

My biggest objection isn't environmental; it's emotional. It has to do with the optional glass doors.

As in see-through.

As in offering a clear view of every drip and drizzle and grease smudge

in the typical cook's repertoire.

Oh, the picture GE offers is splendid, to be sure. All the beautifully colorful, unmoldy, undrippy food is in clear, size-appropriate containers. Not a bottle label or advertising slogan in sight.

It's as if someone came home from the grocery and actually removed everything from its not-so-nice-looking container and repackaged it.

You'd have to clean the thing at least every two minutes, which is a waste of time, not to mention the cleaning chemicals you might be breathing.

So, yeah, nice idea on the eco-refrigerant.

But if I were to get one, I'd take the opaque doors they also offer.

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