

Russell D. Hoffman

Concerned Citizen

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May 27th, 2005

Re: Why I am calling for an *immediate* shut-down of San Onofre Nuclear Waste Generating Station (additional comments for CPUC 2004101008 (A.04-02-026)

**Andrew Barnsdale, SONGS/CPUC
c/o Aspen Environmental Group
235 Montgomery Street Suite 935
San Francisco CA 94104**

Dear Mr. Barnsdale,

During the CPUC hearings Ray Golden, in his introductory comments, stated that SCE currently has – and will be adding again, soon – more renewable capacity than San Onofre produces. Why this doesn't prove my point that we *can* replace San Onofre is beyond me.

Mr. Golden also stated that the cracks in the steam generator tubes that they plug are all “microscopic” and have “zero leakage.” This is in direct contradistinction to my claims otherwise in the intro to the “25 reasons” article in **Protecting California... Why San Onofre cannot be part of the Solution**, which I submitted previously as part of the official record and which was referred to by several activists (all favorably) during the CPUC/SONGS DEIR hearings.

I say this in response to Mr. Golden's comments:

- There are 9,350 tubes in each steam generator – a total of about 112 miles of tubing.
- Without testing for leakage, the “microscopic” cracks would require microscopes to find (by definition), or, at least, complex, sophisticated, possibly bulky, and expensive technology.
- About 10% of the tubes – around 3000 of them – have been plugged already.
- Each plugged tube was cracking for an average of nine months *or more* before being detected and plugged, since plugging only occurs during refueling outages (or perhaps during some other types of outages, but not usually).
- Cracks tend to expand exponentially.
- Currently, during each refueling outage, about 150 tubes are plugged and another 150 more repaired. The number plugged or repaired at each outage will tend to increase exponentially.
- There seems to be no difference between a release which is “ALARA” and “zero releases” in Ray Golden's mind. He will routinely refer to anything which is “Below Regulatory Concern” (or “As Low As Reasonably Achievable,” an industry catch-phrase and technical term for “spill whatever you want whenever you want to”) as “no release”

even when it's physically impossible for that to be true – some venting *had to occur* and yet Mr. Golden will describe it as “zero.”

And lastly, as explained to me by the Nuclear Regulatory Commission:

- Ray Golden has a license to lie. (“Statements made by the public affairs officer of a NRC licensee are not regulated activities. Therefore, the veracity of such statements will not be investigated by the NRC.” – Comment in a registered letter to this author from the Nuclear Regulatory Commission, March 30th, 2002, specifically in response to a letter of complaint that Ray Golden lies to the media, to the people, and to state government officials.)

So, I doubt that absolutely ZERO of these tubes have leaked primary coolant into the secondary coolant loop. And I doubt that there is 100% successful containment of the radionuclides after that, either – the whole plant leaks like a sieve.

Since the facility would inevitably be turned OFF if they don't replace the steam generators (by NRC regulation), the proper baseline should be a non-operating – or even non-existent – plant.

I've recently learned that the December 26th, 2004 Sumatra tsunami has apparently proven to geologists around the world that one “mega-earthquake” can sometimes create a tsunami which is much larger and more widespread than anything previously expected AND it can shake the earth more, and further away from the epicenter, than previously expected. The December tsunami was caused by an earthquake which lasted about 10 minutes (an extremely long time as earthquakes go) and whose fault line stretched more than 700 miles. In the midst of all the horrors of an earthquake, and/or tsunami, our worst nightmare would still be San Onofre and Diablo Canyon.

A shuttered reactor is far safer than an operating one and moving the fuel away from the coast only really helps if we also stop making more of it.

Ray Golden specifically said the spent fuel might someday be discovered to be a great source of wealth for someone. But the nuclear industry has been looking for 50 years and they can't even find a good way to get rid of it, let alone, to make money from it! San Onofre's radioactive waste is far more likely to be a source of misery for millions of people than a source of future wealth for anyone. And every day we create more, the danger also increases that there will be ANY accident.

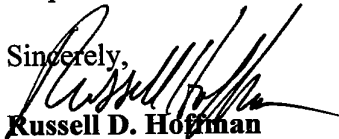
At the hearings, Commissioner Brown asked me if I knew of any studies “proving” a link between San Onofre's daily releases and local cancers. First let me state that the ways the nuclear “Mafia” can fool with statistics would obviously surprise Mr. Brown. One trick is to use as a “baseline” the six months prior to opening the reactor for commercial operations – but the reactor was already running then, in test mode, and often releasing even more crud than when it settles down. Another trick is to use local counties as if they were rectangular blocks around the plant, rather than their complex actual shapes. Another trick is to use the wind rose data as an absolute, and whichever way the wind blows most frequently is compared to where it blows least frequently, not during the actual test period, but based on historical data which is often inaccurate and unverified. Yet another trick is to just keep doing different studies, and throw out (quash) all the ones that might show significance ($P < .05$) in the wrong direction, but sooner or later one is bound to go the other way – and that's the one they publish.

When San Onofre was built, and even just a few years ago, there was less statistical "proof" of the dangers of low-level radiation than there is now. But there is no question that San Onofre's daily build-up of radionuclides is extremely hazardous, were just one minute's worth to get out into our environment. AND there is no question that their daily releases of such things as tritium and all the rest are also a constant hazard to the local population. I have included several recent articles about these issues.

The activists at the recent CPUC SONGS DEIR hearings were virtually unanimous in calling for a shutdown. For the first two hearings, I'm sure this will be reflected in the transcripts of those hearings, but it was true at all four, as indicated in subsequent news articles (a sample is included below).

The reason for this is clear: It's way past time to close these aging "buckets of bolts." But who will take the initiative? The CPUC can and should. Surely, between new tsunami data, SHOCKING new earthquake data from just this week, new terrorism levels worldwide and nationally since 9-11, and Davis-Besse's warning to us all, the CPUC has enough reason to tell the NRC to take their nuclear waste, and their "licensed" nuclear waste generators, and go away. There's just no license for premeditated murder, which is what running these things amounts to. **Premeditated murder.**

Sincerely,


Russell D. Hoffman
Concerned Citizen
Carlsbad CA

Attachments: Various recent articles circulated on the Internet showing that low-level radiation is now a well-known and unequivocal hazard and other related issues about nuclear power and about San Onofre in particular.

From: Sidney Goodman
To: member@ucsusa.org
Sent: 5/12/2005 8:29:57 PM
Subject: Nuclear power

I think the Union of Concerned Scientists (UCS) is mistaken in thinking that nuclear plants are acceptable if they are only made safer.

The problem is that people are not safe enough for nuclear power.

The imperfection of people, their greed, stupidity, deceit, and corruption is the root cause of nuclear power problems.

The degree of perfection that is really required to assure health and safety is beyond the realistic attainment of human beings, industrial equipment, and adequate design.

While I admire most of what UCS has done and is doing, the failure to address the following is very disturbing.

Failure to insist on the abolition of the Price Anderson Act, a federal law which abolishes everyone's property rights to protect the property rights of nuclear utilities.

Failure to focus on the serious net energy yield problems of nuclear plants. Swept under the rug, with fraud and deceit that makes Watergate look like small apples.

Failure to emphasize that nuclear plants do consume and burn large [quantities] of fossil fuel.

Failure to insist on no-fly zones over nuclear plants. Yet, there are no-fly zones over Disneyland and Disney World. Mickey Mouse is protected better than the rest of us.

Failure to mention the health toll of Chernobyl, where Ukrainian health officials have treated more than a million victims for radiation illness.

Failure to focus on the victims of TMI, more than a thousand of whom have been harmed.

It also disappoints that the UCS failed to mention the book I wrote, "Asleep at the Geiger Counter". This book has been endorsed by Dr. Helen Caldicott, the Nuclear Information Resource Service, and four small safe energy groups.

One safe energy advocate has a library of books on nuclear power. He told me that mine is the best of the lot.

Yet, no publicity.

Not a single major media newspaper or magazine has been willing to do a book review. This has reduced the circulation of this teach-in book (written for the layman) to a microscopic level. Too bad. Much of what is in the book is exactly what UCS has been advocating throughout the years, except for acceptance of nuclear power on the premise that it can be made safe, when it can't be, not ever.

The advocates of nuclear power belong to the Union of Unconcerned Scientists.

Sidney J. Goodman, P.E., M.S.M.E.
Professional Engineer (NJ license # 15326)
158 Grandview Lane, Mahwah, NJ 07430
(201) 327-5158; (973) 616-7300 (laboratory - work)
"Sidney Goodman" <gizmo geek@mindspring.com>

From: Molly Johnson <mollypj@yahoo.com>
Subject: Public says go green instead of fixing San Onofre
To: me <peacegrannie@hotmail.com>

Public says go green instead of fixing San Onofre - a referendum on nuclear power

Public says go green instead of fixing San Onofre

By: PAUL SISSON - Staff Writer
http://www.nctimes.com/articles/2005/05/18/news/coastal/22_54_165_17_05.txt

OCEANSIDE ---- A town hall meeting on proposed repairs at the San Onofre Nuclear Generation Station on Tuesday turned into a referendum on nuclear power itself.

Most of the 28 people who spoke at the meeting, held by the California Public Utilities Commission, came down against spending more than \$800 million to replace four steam generators at San Onofre's two functioning nuclear reactors.

Southern California Edison, San Onofre's majority owner, has asked the commission for permission to replace the generators and to pass the cost to its customers. The utility claims that cracking inside the monolithic steam generators, which produce steam that in turn spins turbines to produce electricity, could be unusable by 2010, meaning San Onofre would have to shut down.

Many, but not all, of those who spoke Tuesday said they would prefer that the commission deny Edison's request and invest in renewable energy sources such as solar power and wind energy.

Oceanside resident Maegan Prentice said she has already installed photovoltaic cells on the roof of her home that turn sunlight into electricity. She said that if 18 percent of the rooftops in San Diego County were covered with solar panels, there would be no need for San Onofre.

"If we keep putting money into projects that are already doomed, we just keep putting off the future," she said.

Pastor J. Steven Beckham drove to Oceanside from Riverside to call for a shift from atomic power to green energy. He said it would take about 100 square miles of solar panels to power the nation.

"Do we have 100 square miles of rooftops in Southern California?" he asked. "I think we do. We've got the resources to do clean power now."

As did several other speakers, Beckham noted that nuclear power plants generate radioactive waste which the nation still has not decided where to store.

"I just can't see how it's ethical from any point of view," Beckham said.

Al Tschaeche of Encinitas was one of several in attendance who defended

San Onofre's repair plans. Tschaeche said he worked as a health physicist in the nuclear industry for more than 50 years and found no evidence of chronic health risks.

"There's nothing wrong with nuclear power," he said.

Tschaeche noted that, if San Onofre is not repaired, the plant would likely have to be replaced with several natural gas-fired power plants. He noted that burning fossil fuels generates carbon dioxide, which contributes to worldwide temperature increases known as global warming.

A draft environmental impact report commissioned by the utilities commission provides contrary statements about the viability of renewable energy. The report states that it would not be feasible to replace the more than 2,200 megawatts of electricity San Onofre generates ---- enough to power more than 2 million homes ---- with renewable sources.

After the meeting, Commissioner Geoffrey Brown said the debate over atomic versus renewable power is at the crux of the commission's decision on whether to allow the repairs that Edison has requested.

"The question is whether we can subtract nuclear energy and totally replace it with renewables. At this point, I don't think we can do that," Brown said.

Contact staff writer Paul Sisson at (760) 901-4087 or psisson@nctimes.com <<mailto:psisson@nctimes.com>>.

"Should any political party attempt to abolish social security, unemployment insurance, and eliminate labor laws and farm programs, you would not hear of that party again in our political history. There is a tiny splinter group, of course, that believes that you can do these things. Among them are a few Texas oil millionaires, and an occasional politician or businessman from other areas. Their number is negligible and they are stupid." President Dwight D. Eisenhower, 1954

Molly P Johnson
6290 Hawk Ridge Place, San Miguel, CA 93451
805 467-2431

Do you Yahoo!?
Read only the mail you want - Yahoo! Mail SpamGuard.
http://promotions.yahoo.com/new_mail

From: Molly Johnson <mollypj@yahoo.com>
Subject: Just the Facts: A Look at the Five Fatal Flaws of Nuclear Power
To: me <peacegrannie@hotmail.com>

Excellent fact sheets! Molly

http://www.citizen.org/cmep/energy_enviro_nuclear/nuclear_power_plants/articles.cfm?ID=13447

Just the Facts: A Look at the Five Fatal Flaws of Nuclear Power

This new series of educational fact sheets about nuclear power is aimed at refuting some of the central arguments that nuclear power advocates use when advancing their message. Specifically, there are five key reasons why nuclear power is not a solution to the United States' energy needs: cost, security, safety, waste, and proliferation.

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Just the Facts: Cost (PDF)

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Just the Facts: Security (PDF)

*

Just the Facts: Safety (PDF)

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Just the Facts: Waste (PDF)

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Just the Facts: Proliferation (PDF)

The subject of nuclear power is making news headlines, but missing from the public debate are many of the facts. The same company executives and members of Congress repeat their message over and over, but that message must be dissected to ensure it's accurate.

With increased attention on nuclear energy this year, the Senate energy bill is likely to include many nuclear-friendly provisions designed to encourage energy companies to build new reactors for the first time in 30 years. Already, the U.S. House of Representatives passed its version of energy legislation last month, including \$6.1 billion in taxpayer subsidies and tax breaks, as well as other incentives.

"Should any political party attempt to abolish social security, unemployment insurance, and eliminate labor laws and farm programs, you would not hear of that party again in our political history. There is a tiny splinter group, of course, that believes that you can do these things. Among them are a few Texas oil millionaires, and an occasional politician or businessman from other areas. Their number is negligible and they are stupid." President Dwight D. Eisenhower, 1954

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No Recipient, Bennett Ramberg

To:
From: "Russell D. Hoffman" <rhoffman@animatedsoftware.com>
Subject: Bennett Ramberg
Cc:
Bcc:
Attached:

4 New York Times Letter to Editor North Korea & Nukes

Date: Mon, 23 May 2005 11:49:05 EDT

New York Times

Bennett Ramberg letter to Editor May 23

To the Editor:
Re "Letting Nukes Happen" (editorial, May 16):

Your presumption that the United States can buy North Korea's fidelity not to remain a nuclear weapons state is a chimera.

Because regime change is unlikely any time soon, the United States and North Korea's neighbors will confront the risk that North Korea could launch a nuclear strike because of intelligence failure, a delegation of nuclear initiation to field commanders, and poor command and control. The interlocutors with North Korea can reduce these risks by providing Pyongyang with such nuclear confidence measures as a hot line, satellite intelligence and economic engagement.

Consider the Bush administration's alternative and its consequences: a further isolated North Korea, increasingly paranoid, with poor intelligence placing its nuclear forces on hair-trigger alert. This is not an outcome the international community can abet.

Bennett Ramberg
Los Angeles, May 16, 2005
The writer was a policy analyst at the State Department, 1989-90.

To: jerseyshorenuclearwatch@yahogroups.com
From: Christopher Couture <chris@networkguy.net>
Subject: [JerseyShoreNuclearWatch] The Japan Times: Radiation leak 'could kill 400,000'

Not directly about Oyster Creek, but a good article about what could possibly happen...

<http://www.japantimes.co.jp/cgi-bin/getarticle.pl5?nn20031028a2.htm>

Radiation leak 'could kill 400,000'

Researcher bases grave study on Chernobyl disaster

A large-scale radiation leak at a major nuclear reactor in Japan could kill more than 400,000 people and cost up to 460 trillion yen over 50 years, according to a study by a Kyoto Sangyo University researcher released Monday.

Pak Sung Jun, a full-time lecturer at the university, made the estimate assuming an accident similar to the one in Chernobyl, Ukraine, occurred at a 1,180-mw reactor in Japan such as either the No. 3 or No. 4 pressurized water reactors of the Oi nuclear plant in Fukui Prefecture.

Few estimates have been made on the damage a nuclear accident in Japan would cause since the former Science and Technology Agency's estimate in 1959, made before the government began building nuclear plants on a large scale. The agency came up with a cost of 3.7 trillion yen, experts said.

The late Takeshi Seo, a former Kyoto University Research Reactor Institute worker, estimated how radiation would spread and affect people in a nuclear meltdown. But no one has expressed the estimates in terms of monetary cost, according to Hiroaki Koide of the institute.

Pak applied various data, including income, agricultural output and population, to a formula Seo developed in calculating the cost of damage over 50 years.

High-level radiation would prevent people from being able to live within 160 to 200 km downwind of the nuclear plant, and no farming could occur within at least 500 km.

The most damage would occur if north winds blew from Fukui toward the major cities of Kyoto and Osaka. Relocation costs and the losses for agricultural and fisheries industries would total 391 trillion yen, and the costs of human suffering would reach 66 trillion yen, including medical costs.

The death toll would be the largest, at 410,000, if west winds blew to contaminate the more populous Tokyo and Kanagawa Prefecture. Immediate deaths were estimated at up to 17,000.

The average damage estimate came to 104 trillion yen. But liability insurance, to which nuclear reactor operators are obliged to subscribe, caps coverage at 60 billion yen, less than one-1,700th of the average damage estimate.

Pak said the current insurance system allows victims to receive only small sums as compensation. He called for discussion on Japan's nuclear-reliant energy policy to be based on actual estimates.

The 1986 Chernobyl accident involved a meltdown of the reactor core and explosions. Thirty people were killed immediately and radiation was released into the atmosphere.

The Japan Times: Oct. 28, 2003

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X-OriginalArrivalTime: 02 Mar 2004 17:05:12.0387 (UTC) FILETIME=[86622130:01C40078]
X-eGroups-Remote-IP: 65.54.173.37
From: "Denise Garner" <jcreedst@msn.com>
X-Originating-IP: [67.82.229.123]
X-eGroups-Approved-By: flower68child <ncohen12@comcast.net> via web; 04 Mar 2004 03:35:47 -0000
X-eGroups-Remote-IP: 66.218.66.99
Mailing-List: list JerseyShoreNuclearWatch@yahoogroups.com; contact JerseyShoreNuclearWatch-
owner@yahoogroups.com
Delivered-To: mailing list JerseyShoreNuclearWatch@yahoogroups.com
List-Unsubscribe: <mailto:JerseyShoreNuclearWatch-unsubscribe@yahoogroups.com>
Date: Tue, 02 Mar 2004 12:05:12 -0500
Subject: Re: [JerseyShoreNuclearWatch]
Reply-To: JerseyShoreNuclearWatch@yahoogroups.com
X-NAS-Bayes: #0: 6.17725E-281; #1: 1
X-NAS-Classification: 0
X-NAS-MessageID: 1361
X-NAS-Validation: {880D4627-8FD9-4821-AE3F-0E8173277AE6}

Paula,

You guys are doing a great job. This state has so many problems, I think most of them come from the elected people. These are people that don't have an understand about science they only get into office because they what

to do things for them self. And that is a major problem. But, keep educating everyone and hopefully we'll get them out of office too.

Take care

Denise Garner
SPARE
Save, Preserve and Respect Our Environment
732-928-7896

>From: "Paula A. Gotsch" <paulagotsch@verizon.net>
>Reply-To: JerseyShoreNuclearWatch@yahoogroups.com
>To: <JerseyShoreNuclearWatch@yahoogroups.com>
>Subject: Re: [JerseyShoreNuclearWatch]
>Date: Mon, 1 Mar 2004 14:20:49 -0500

>
>The Millstone Plant (circa - Oyster Creek Plant) in Connecticut is
>calculated to be the cause of the large amount of breast cancer on Long
>Island. Radioactive path for the plant was from CT wafting across Long
>Island Sound.
>Similarly Oyster Creek radiation followed a flow right up the (now
>designated) cancer corridor in NJ. Don't remember the name of the report.

> ----- Original Message -----
> From: Edith
> To: JerseyShoreNuclearWatch@yahoogroups.com
> Sent: Thursday, February 26, 2004 11:31 AM
> Subject: [JerseyShoreNuclearWatch]

>
>
> We have had requests regding the Tooth Fairy Project.and the
>relationship
> between breast cancer and low level radiation.
>

- >
- > Edith Gbur
- >
- > =====
- > LIFE'S' DELICATE BALANCE - CAUSES AND PREVENTION OF BREAST CANCER
- >
- > Despite the fact that the cancer epidemic has not ended, the publisher
- >has taken Janette Sherman's book out of print. She has negotiated to get
- >the last remaining copies.
- >
- > Far too few people understand that cancer is caused by ... carcinogens!
- >These are the chemicals, pesticides, endocrine disrupters, and nuclear
- >radiation permeating our environment. We need to educate our families,
- >friends and colleagues in order to begin primary prevention. Let us keep
- >the next generation from developing cancer.
- >
- > Copies are \$10.00 each plus \$3.85 postage for the U. S. or Canada.
- > (Original publisher's price was \$24.95). For copies, please contact the
- >author at:
- >
- > Janette D. Sherman, M. D.
- > P. O. Box 4605
- > Alexandria, VA 22303
- > toxdoc.js@verizon.net
- > www.janettesherman.com
- >
- >
- > Jersey Shore Nuclear Watch, PO Box 4283, Brick, NJ 08723 Phone
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To: JerseyShoreNuclearWatch@yahoogroups.com
From: Edith <egbur@optonline.net>
Subject: [JerseyShoreNuclearWatch] Radiation and Public Health Project website on 8 nuclear plant study

Press Release based on Study of 8 nuclear plants - demonstrate that when nuclear plants shut down the rate of cancer goes down.
Edith Gbur

April 26, 2000 Press Release Contact: Scott Cullen:
(516) 819-4886
Jerry Brown:
(305) 321-5612

**Infant Deaths Drop Dramatically After Nuclear Plants Close
Model, Congressman Join Groups In Calling on Government
to Consider Adverse Health Effects of Radiation
When Renewing Nuclear Plant Licenses**

[WASHINGTON, D.C] – Infant death rates near five U.S. nuclear plants dropped immediately and dramatically after the reactors closed, a new study shows, raising questions about the government's refusal to consider the effects of radioactive emissions from nuclear plants on local residents (see attached).

Moreover, dramatic decreases in childhood cancer cases and deaths from birth defects, which are strongly affected by radiation exposure, occurred near one of the reactors. The study suggests that the health of 42 million Americans who live downwind and within 50 miles of a nuclear plant may be affected by these reactors, according to the study's author. The study was conducted by the New York-based Radiation and Public Health Project and published in the spring issue of the scientific journal Environmental Epidemiology and Toxicology.

In light of the study, model Christie Brinkley today joined Rep. Michael Forbes (D-N.Y.) and others in calling upon the U.S. Nuclear Regulatory Commission (NRC) to immediately consider whether adverse health effects are associated with nuclear plant operations before renewing nuclear power plant licenses. Brinkley is a board member of the STAR (Standing for Truth About Radiation) Foundation, a group formed in 1997 by concerned

Long Island residents.

"As a mother of young children who lives near nuclear facilities, I worry daily that radiation from these plants may be deadly to our children," Brinkley said. "So far, the federal government has buried its head in the sand. If closing the nuclear power plants was not responsible for the decline in infant deaths, what was?"

The NRC rules do not consider the potential adverse health effects of radioactive emissions when considering license renewal applications. Owners of twenty-eight nuclear reactors at 17 nuclear facilities around the country are scheduled to seek license renewals by 2003. The NRC has never voluntarily studied the link between radioactive emissions from nuclear plants and patterns of cancer.

The study, conducted by Joseph J. Mangano, a research associate at the Radiation and Public Health Project, examined infant death rates in counties within 50 miles and in the prevailing wind direction of five reactors: Fort St. Vrain (located near Denver, CO), LaCrosse (near LaCrosse, WI), Millstone/Haddam Neck (near New London CT), Rancho Seco (near Sacramento, CA.) and Trojan (near Portland, OR).

In the first two years after the reactors closed, infant death rates in the downwind counties under 40 miles from the plants fell 15 to 20 percent from the previous two years, compared to an average U.S. decline of just six percent between 1985 and 1996. In each of the five areas studied, no other nuclear reactor operated within 70 miles of the closed reactor, essentially creating a "nuclear-free zone."

The study detailed the plunges in newly-diagnosed leukemia and cancer cases and birth defect deaths in children under five years in the four-county local area downwind from Rancho Seco. This excessive decline has continued through the first seven years after the June 1989 closing. In contrast, the local infant death rate rose in the two years after Rancho Seco began operations in 1974.

"This article is the first to document improvements in health after a nuclear plant closes," says study author Mangano.

"It supports many other studies showing elevated childhood cancer near operating reactors." "The federal government allows nuclear reactors to emit a certain level of radiation, saying that the amount is too low to result in adverse local health effects. However, this study clearly calls that assumption into question, as do other

studies"

The announcement comes on the 14th anniversary of the catastrophic accident at Chernobyl, a nuclear power reactor. Increased infant cancer and death rates after Chernobyl have been documented, not just in the former Soviet Union, but in Western Europe and the US, where Chernobyl fallout levels were deemed by regulators to be within safe limits.

Nuclear plants seeking re-licensing this year include Oconee Nuclear Station in northwest South Carolina; Arkansas Nuclear One in Russellville, Ark.; Edwin I. Hatch in southern Georgia; and Turkey Point near Miami, Fla. In 2001, plants expected to seek re-licensing include Catawba, which lies on the border between North Carolina and South Carolina; North Anna, located near Fredericksburg, Va.; Surry, near Virginia Beach, Va.; and Peach Bottom, located near Lancaster, Pa. Recently, the government approved a license renewal application for Calvert cliffs, located near Baltimore, Md.

Said Forbes, whose eastern Long Island district lies across the Long Island Sound from Millstone Nuclear Power Station in Connecticut,

"On this day in particular, which is the fourteenth anniversary of the Chernobyl disaster in Russia, we need to address the very real and legitimate concerns of people who live near nuclear reactors. At the very least, the government has a responsibility to determine whether emissions from these plants are harming people."

Janette Sherman, an Alexandria, Va., M.D. who specializes in internal medicine and toxicology, and has written books about the causes of breast cancer and the relationship between chemical exposure and disease, said she believes Mangano's study confirms the link between radiation and illness.

"This confirms the best of public health principles: that when you remove a known cause of illness, health improves," Sherman said. "The adverse effects on humans exposed to radiation are predictable. What is gratifying about the research is that it showed childhood health measures increasing so dramatically and quickly after the reactors closed"

For some of those who live near reactors, the government's inaction has been maddening. Randy Snell, a New York resident who lives near the Brookhaven National Laboratory (BNL), learned several years ago that his 8-

year-old daughter had developed a rare soft tissue cancer called rhabdomyosarcoma. Snell also has uncovered 19 other cases of the same rare cancer in Suffolk County; in one area near BNL, the rate of this cancer in children under 10 since 1994 is 15 times the national average. "I have no doubt that radiation from nuclear reactors sickens people who live nearby," Snell said.

"What is really disheartening, though, is that state and federal public health agencies haven't lifted a finger to confirm the link between Brookhaven and all these rare child cancers. I hope this study forces them to act."

Attachment

**IMPROVEMENTS IN INFANT DEATH RATE
AFTER CLOSING NUCLEAR REACTORS
(decreases in death rate age 0-1)**

**REACTOR CLOSED YEAR % CHANGE
IN INFANT DEATH RATE**

LaCROSSE, WI 1987 -15.3%
RANCHO SECO, CA 1989 -16.0%
FORT ST. VRAIN, CO 1989 -15.9%
TROJAN, OR 1992 -18.0%
MILLSTONE, CT 1995 -17.4%
BIG ROCK POINT, MI 1997 -54.1%
MAINE YANKEE, ME 1997 -33.4%
U.S. Average 1985-96 -6.4%

OTHER IMPROVEMENTS IN INFANT HEALTH AFTER CLOSING RANCHO SECO, CA REACTOR

Percent Change in Birth Defect Death and Cancer Incidence Rates

CATEGORY LOCAL US

DEATHS 0-1 FROM BIRTH DEFECTS -20.9% - 5.8%

DEATHS 1-4 FROM BIRTH DEFECTS -29.3% - 7.0%

CANCER CASES 0-4 -37.2% +6.2%

Two years before and after closing are compared (e.g., LaCrosse 1986-87 vs. 1988-89). All downwind counties less than 50 miles from closed reactor are included. No other reactors are located within 70 miles of above reactors. Millstone was temporarily closed from late 1995 to mid-1998. All data from U.S. Centers for Disease Control (<http://www.cdc.gov>), except for Big Rock Point and Maine Yankee, which are available from the states. Prepared by Joseph J. Mangano, MPH, MBA, Radiation and Public Health Project, April 19, 2000

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Subject: From RADBULL

19 [NukeNet] Net Loss From Nuclear Power - Energy Audit

Date: Wed, 27 Apr 2005 14:16:28 -0700

NukeNet Anti-Nuclear Network (nukenet@energyjustice.net)

Nuclear Power Used Up More Energy
Than It Delivered To Society !

Nuclear Power was devised to make the public pay
the high cost of plutonium production, the element needed for nuclear
weapons. The ultimate doomsday machine!

"At the end
of forty years of the US nuclear power program
by 1991, this energy- 381302 MW-yrs -delivered to
society is still less than the gross cumulative
energy invested in nuclear plant construction and
maintenance of 489174 MW-yrs! "
Energy audit of nuclear fuel cycles

By R. Ashok Kumar,

B.E.M.E(Power),Negentropist,Flat 1/13, Telec
Officers' CHS.,Ltd.,Plot 30, Sector 17, Vashi,
Navi Mumbai-400705. Tel:7896209.

Although the gross nuclear capacity of the USA
reached 104820 MW (greater than 150 MW capacity
only considered), less than 20000 MW energy
capacity was in fact delivered to society in
1991(Spread Sheet No.12A: See attachment). This is
derived as follows:Gross cumulative energy
delivered to society (1991)= Megawatt-years/years
= 798370/40=19959 MW or 20000 MW approximately.

The rest was all consumed by the nuclear industry
itself. The actual energy- capacity delivered at
the consumption point was much less. Using a
figure of 0.597 for the plant factor, and 20%
transmission,distribution and conversion loss, the
amount of energy delivered by the programme
amounts to only 9.09% of the energy generated. For
the annual energy invested in the nuclear
programme, the energy generated per year per unit
was divided by a factor of 1.5(R. Ashok
Kumar.1989.The Indian Nuclear Energy Programme:A
Net Energy Analysis. PPST Bull. No.18.March.pp17:
Energy Invested in Waste Storage. See also
Appendix 1,this article.).

Thus as the US programme of commissioning of the nuclear power plants progressed from 1952 to 1991 (end of my study period for the US programme), the average nuclear capacity added per year was 2621 MW while the average nuclear industry demand was 12229 MW! The cost overrun was 4.25.

It is estimated (based on assumptions given in the appendix) that the programme started delivering net energy to society only thirty years after the commencement of the programme. And while it generated 1283911 MW-yrs in 30 years, it delivered to society only 30% or less in a brief period from 1981 only. At the end of forty years of the US nuclear power programme by 1991, this energy- 381302 MW-yrs -delivered to society is still less than the gross cumulative energy invested in nuclear plant construction and maintenance of 489174 MW-yrs!

This analysis assumes only a portion of the energy used for waste storage and maintenance. This American civilian nuclear programme cost a total of Rs 45 trillion. This means Rs 45 Crores per Megawatt! But as we saw above, this programme delivered to society an energy capacity of 9532 MW per year

over 40 years , with an installed capacity of 104820 MW achieved over 38 years.

As shown above the US programme needed an additional gargantuan amount of thermal power to construct the nuclear facilities. The data for the nuclear capacity additions were taken from Nuclear Engineering International, April 1991.

Appendix 1

Nuclear Wastes Unmanageable: An audit of the Energy Required

As of year 2000, 7925 reactor years of operation have been completed in sixteen countries which have operating nuclear power plants (Data till 1990 have been taken from Nuclear Engineering International April 1991). Thus the 16 countries of the world generated by end 1990 in their nuclear power plants 15714.1 TWh or 1793847 MW-yr. The corresponding capacity was 290898 MW(337 reactors). Average nuclear capacity was $290898/337 = 863.2$ MW. All over the world the number of reactors retired to date is 90 with a total capacity of 77688 MW. Net capacity on line = $290898 - 77688 = 213210$ MW. Energy generated by these

reactors from 1991 to 2000 amounts to 213210 MWxlifetime plant load factor of 0.64 x 10y= 1364545 MW-yr.

Therefore the total energy generated till 2000 from begin of nuclear programmes= 1793847+1364545= 3158392 MW-yr. The number of reactor years of operation till end 1990 was 4500. Taking the number of reactor years of operation to be proportional to the energy generated yields a total of 7925 reactor years of operation. For this the power required for waste storage and maintenance is 4.75 MW(thermal). See Lovins. Technical Bases for Ethical Concern. In AH Lovins and JH Price. 1975. Non-Nuclear Futures. Harper-Colophon. p 97. This is at the rate of 1.505 watts per megawatt-year (of gross energy generated) for waste storage and maintenance.

Now the energy invested in the nuclear power programmes of the 16 countries till end 1990 was 1793847 x 0.5= 896923.5 MW-yr(See below for derivation). From 1991 to 2000 units were retired rather than added. Let us assume that the energy invested remained at this value (1990 end value). Then, net energy available after accounting for the energy invested which included energy for waste storage and its maintenance for 31500

years(see below) was $3158932-896924= 2261478$ (The energy invested 896924, if considered at the bus bars would be higher).

Thus the number of additional years of waste storage and its maintenance which is obtained by dividing the net energy available 2261478 MW-yr by the power needed for waste storage and its maintenance 4.75 MW(thermal) is a maximum of 476101 years because there is a conversion efficiency for electrical to heat production of 50% to 80%. This is far from enough for storing wastes for a million years or more. Thus the nuclear energy programmes are net energy consumers. The latest evaluation of waste storage research proclaims this loudly(Institute for Energy and Environmental Research. May 2000. Science for Democratic Action. See also R. Ashok Kumar, op cit.).

<cut>

An estimate of the fraction of energy generated debited to investment in the nuclear power programmes can be done as follows:
Let us take four countries namely, the USA, France, Japan and Canada. The energy generated back of the 20% losses is given by the (sum of the total nuclear industry demand and the net energy delivered to society)/0.8. This for these four

countries for which the energy audit has been worked out by the author becomes 2354460 MW-yr. Details in a separate article. The nuclear industry demand works out to 1175742 MW-yr which is 50% of the gross energy generated.

A number of surprises as the nuclear power programmes progressed over the world.

It must be noted that a number of surprises have caused retrofits and replacements like the steam generator premature replacements and the replaced radioactive steam generators enclosed in costly sarcophages worldwide. These have enormously increased the energy invested in these white elephants.

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04/21/05 **** RADIATION BULLETIN(RADBULL) **** VOL 13.91

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40 Las Vegas SUN: Goodman wants state law banning nuke waste transport

By Dan Kulin <dan@lasvegassun.com> LAS VEGAS SUN

Las Vegas Mayor Oscar Goodman said Wednesday that he wants a state law banning the transportation of radioactive waste through Nevada, a law similar to the city's ordinance.

During the Wednesday City Council meeting, Goodman asked Deputy City Manager Betsy Fretwell to look into getting the Legislature to consider such legislation this year.

Goodman also said he would want the law to require transporters of other dangerous cargo to be required to alert local

governments before they travel through an area.

The mayor's comments came on the heels of a Monday ruling in federal court that upheld a Washington, D.C., ban on hazardous rail shipments, which the mayor said was a wonderful development for local governments including Las Vegas. In 2000, Las Vegas adopted an ordinance banning nuclear waste shipments through the city in an effort to keep waste bound for the proposed Yucca Mountain waste repository out of the city.

The Clark County District Attorney's office questioned if it were constitutional, but Goodman has noted that the ordinance has never been tested in court. Goodman has said he would have drivers hauling high-level nuclear waste through Las Vegas arrested. On Tuesday, Goodman said that in light of the ruling he would ask the city attorney to draft a new ordinance that would expand the city's ban to include other dangerous cargo.

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From: "Sidney Goodman" <gizmogeek@mindspring.com>
Subject: Windpower off NJ Coast?
To: undisclosed-recipients: ;

Put offshore Wind Power Generators Off the NJ Coast?

It is controversial issue. I heard complaints that off shore wind generators spoil the view and kill birds.

Airplanes kill birds, windows kill birds when they smash into them, and cats kill them. There is no call to abolish airplanes, windows, or cats.

The number of birds killed by wind power is small compared to those killed by pollution from coal, oil, gas, nuclear power, or killed in wars fought to control oil. Other living beings are also killed from these sources. Wind power saves lives and reduces disease.

Improvements in wind generator design reduced the already small threat to birds. Improvements made wind power the fastest growing segment of the energy production market.

Before I became an engineer, I was an artist. I find the latest wind generator designs aesthetically pleasing. Tourists go off the beaten path to view windmills in many foreign lands. We can't please everyone though.

Are tombstones better to look at? Is the anguish of pollution victims better to see?

Bad air inflicts tens of thousands of deaths and illnesses. Radioactive emissions from nuclear plants have harmed many despite white-wash reports. The first signals that nukes weren't as clean as ballyhooed was the discovery of deformed frogs and animals near plants in normal operation. In the HBO documentary movie "Chernobyl Heart", the ghastly condition of children was shown. A doctor commented that in Belraus, only about 15 to 25 per cent of the children are healthy. This was 18 years after the Chernobyl nuclear disaster. Despite denials by nuclear promoters, farmers downwind of the Three Mile Island (TMI) nuclear plant accident experienced still-born and deformed animals. This never happened throughout generations of farming. Farmers near nukes complained about this long before TMI.

Referring to the first war with Iraq, *The Wall Street Journal* mentioned the lament of Dr. Carl Sagan. Dr. Sagan was concerned that that our government was spending about as much money on non-nuclear alternatives to fossil fuel as we were

spending during each hour of the war with Iraq. Whether his statistics were exact or not, the gist of his point was and is very true.

Wind power can generate hydrogen as well as electricity. Hydrogen is the cleanest fuel imaginable. When it burns, its effluent is water that is pure enough to drink. Astronauts drink the water from fuel cells on space craft. I learned that when I designed fuel cells at H Power Corporation. Fuel cells produce electricity from hydrogen and air.

Wind blows day and night. At night, when the demand for electricity is low, wind power can produce hydrogen almost cost free, electrolyzing water. The idea for putting wind power off the coast of New England was proposed to provide New England with all the electricity it needed. Utilities opted for nuclear power instead.

Nuclear engineers laughed at the hydrogen option. They taunted that hydrogen is dangerous because it explodes. Yes, it can explode. Gasoline and natural gas explode. Combustibility makes them useful as a fuel.

There was a hydrogen explosion in the Three Mile Island nuclear plant, during its partial melt-down, near Harrisburg, PA. We were lucky that the plant had only operated three months when the accident happened. If the plant had been operating much longer, the explosion would have been great enough to blow the plant wide open. That didn't scare nuclear engineers. But hydrogen at a little old wind mill or at a solar system (which can also produce hydrogen) is terrifying to them.

We have been cheated out of the golden age of economic and environmental benefits of renewable energy; less inflation, increased employment, lower energy costs, a more peaceful world, less proliferation of nuclear weapons, and a cleaner environment. Dick Cheney's secret energy meetings, scuttled these benefits. It was a theft. The answer to his perfidy is blowing in the wind.

Sidney J. Goodman, P.E., M.S.M.E.

Sidney Goodman
gizmogeek@mindspring.com
EarthLink Revolves Around You.

From: "Sidney Goodman" <gizmogeek@mindspring.com>
To: nicholas@nytimes.com
Subject: The claim that nuclear power is a solution is part of the problem.

The claim that nuclear power does not contribute to global warming is false. Immense amounts of fossil fuel have been and continue to be burned to enrich nuclear fuel, and there are large net energy losses that have been swept under the rug. Large amounts of fossil fuel will also be guzzled for dealing with nuclear waste.

Nuclear power is about as efficient as using a cannon to ring a door bell with.

The claim that nuclear power does not emit poisons is a grotesque fraud. Great damage has already been done, but has been covered up. Reports of damage have been censored. Many top scientists have been persecuted for blowing the whistle on this fraud. Although the nuclear industry claims that no one was harmed by the Three Mile Island accident, independent findings indicated otherwise.

18 years after the Chernobyl accident in the Soviet Accident, the Ukrainian Ministry of Health reports that at least 2 million people suffer from radiation illness. Some doctors in India believe that the fallout from Chernobyl killed at least a million children, over the years. In Belraus, only about 20 per cent of the children are healthy.

The claim that large releases like at Chernobyl cannot happen in the USA is a foolish denial of reality. Much larger releases can occur in a terrorist attack on a spent fuel rod pool.

The radioactive waste problem has not been solved, and it will never be solved. It will sicken and kill immense numbers of living beings and will poison many areas for hundreds of thousands of years.

Many claims made by nuclear proponents violate the most elementary principles of physics, engineering, common sense, and decency. For example, they have discovered that when you have a nuclear disaster, the wind stops blowing.

Poisons can and have been blown thousands of miles, yet the industry is satisfied with a mere ten mile evacuation zone.

The industry also wants to dump highly toxic, so-called low level wastes in ordinary garbage dumps. The industry wants to "recycle" radioactive metals, and put them in ordinary consumer products.

Nuclear power is not safe. If it were safe, it would not be necessary to maintain the Price Anderson Act, which excuses a nuclear utility for what could be more than trillion dollar disaster.

Every nuclear plant is a terrorist's dream come true. Each plant is a potential weapon of mass destruction.

Nuclear plants abroad, subsidized with American tax dollars, have proliferated the building of nuclear weapons.

Cleaner, safer, less costly energy sources have been sacrificed on an altar of greed, and nuclear fraud and deceit.

Many people will do anything for money. In this day and age, that anything is nuclear power.

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EarthLink Revolves Around You.

To: greenaction@yahoogleroups.com
From: Ellen Bicheler <ellenb@sonic.net>
Subject: [greenaction] DestiNY's Child Mega-mall in upstate New York could give birth to a clean-energy awakening

DestiNY's Child

Mega-mall in upstate New York could give birth to a clean-energy awakening

By Amanda Griscom Little

20 May 2005

Could a mall mogul's dream project give a big boost to renewables?

Image: DestiNY USA .

As the Senate deliberates over the Bush-backed energy bill and enviros send out another round of distress signals over America's obdurate fossil-fuel dependency, who would believe that the next big thing in renewable energy is being driven by a tenacious commercial developer with strong GOP affiliations and 25 mega-malls under his belt?

Picture a gargantuan shopping complex in upstate New York -- a so-called "retail city" big enough to make Mall of America look like a five-and-dime -- with thousands of shops plus restaurants, theaters, hotels, a high-tech research park

for commercial R&D, and a sprawling, climate-controlled biosphere for recreation. Yet another environmental abomination, you say?

Not so fast.

Shopping-mall titan **Robert Congel**, one of the world's biggest commercial real-estate developers, is about to begin building a multi-billion-dollar, **800-acre** shopping and entertainment complex with all of the above-mentioned amenities, but without -- and here comes the part that strains belief -- so much as a barrel of oil or a kilowatt of fossil-fuel-generated power. That's right, folks, a 100 percent clean-energy mega-mall. He vows that it will be the closest thing to an "Apollo Project" for renewable energy that America has ever seen -- one that grows the economy, strengthens national security by encouraging energy independence, and protects the environment.

Congel's bulldozers -- fully powered by pure biodiesel, along with the rest of his construction equipment -- are scheduled to begin leveling the development site in early June on a massive brownfield in Syracuse, N.Y., formerly dubbed "Oil City" for the giant tanks of crude it once housed. On it he plans to erect the optimistically named "DestiNY USA," a retail complex powered entirely by wind turbines, solar panels, fuel cells, and biofuels.

Despite skepticism from a number of Syracuse locals, commercial-development analysts, and renewable-energy experts that the immense and unprecedented scheme can be pulled off, Congel doesn't hesitate to make grandiose predictions

for DestiNY, claiming it will attract tourists from around the world and become a paradigm-shifting catalyst for the nation's renewable-energy markets. Muckraker heard these forecasts firsthand during a lavish investor symposium in February at the developer's 6,000-acre retreat an hour north of Syracuse where, in the interest of full disclosure, room and board were provided for a night.

Retail mecca seeking presidential pat on the back.

Image: DestiNY USA .

Congel so relishes the symbolism of his project that he is working with a bipartisan cohort of politicians to get a provision into the energy bill that would call on the president to select and recognize "renewable and sustainable mega-projects that can move America toward energy independence," as **Rich Pietrafesa**, a DestiNY managing director and policy adviser to Congel, explained it. The measure does not entail any subsidies or tax breaks for the venture; it's purely symbolic. "If the White House says, 'This kind of project is fundamental to the future and safety of America,' it will go a long way to accelerate the commercial acceptance of [renewable-energy] technologies," Pietrafesa said.

That's not to say that the complex isn't getting any tax breaks. On the contrary, the DestiNY team has managed to secure a staggering raft of tax benefits at every level -- city, county, state, and federal -- with the help of New York politicians on both sides of the party line, including Sens. **Hillary Clinton** (D) and **Charles Schumer** (D) and Gov. **George Pataki** (R). On the federal plane, Clinton and Schumer went to bat last year to add \$231 million to the corporate tax bill to finance \$2 billion in "green bonds" for eco-friendly shopping developments.

DestiNY is expected to reap a significant portion of these funds due to its unparalleled size.

That is, of course, if the developers can meet the bond requirements, which will be no small task, according to **Ashok Gupta**, the senior energy economist at **Natural Resources Defense Council**. "The green guidelines for these bonds are as stringent as I've seen -- hardly a giveaway from a policy standpoint," he told Muckraker. Gupta said he was impressed by the DestiNY team's enthusiasm for the strict guidelines, but wasn't sure the mall builders knew what they were in for. "I have a hard time believing that the DestiNY executives can deliver on their green promise," he said. "These are not developers who have ever attempted a green project, and it's not clear to me that they understand the extent of their commitment, financially and practically." Even developers who have worked on multiple green buildings would find a project of this scale to be extraordinarily challenging, he said.

Rick Fedrizzi, president of the **U.S. Green Building Council**, who consulted with the DestiNY executives on their green-building goals, was less skeptical. "At first, it had a lot of us in disbelief. I had never seen anything of this magnitude," Fedrizzi told Muckraker. "But the DestiNY team kept pushing us further and further to develop a plan that not only meets but exceeds LEED standards," the council's green-building guidelines, considered the benchmark for the industry. Fedrizzi added that Congel "clearly knows how to execute," as evidenced by his decades of success as a developer. "This is his legacy project. He's dead serious about making this into a world-class showcase."

A Touch of World-Class

Congel's renewable-energy goals for DestiNY are world-class indeed. To take solar, DestiNY would produce and consume "at a minimum 32 megawatts of solar electricity," according to Pietrafesa. To put this in perspective, 32 MW would not only be the world's biggest solar installation, it would account for one-third of the total solar capacity installed annually in the United States.

All this, and nary a drop of petroleum.

Image: DestiNY USA .

The complex would also consume a minimum of 28 MW of electricity from fuel cells (with hydrogen derived from renewables), said Pietrafesa, which in turn would increase the total amount of installed "electricity-generating" fuel-cell capacity in the country by roughly 60 percent. DestiNY would also rely on a minimum daily feed of 120 MW from biodiesel and biomass combined, and 44 MW of wind power -- both mind-boggling numbers as well.

Congel has gone so far as to predict that DestiNY could accelerate economies of scale to the point where the price of renewable energy would become cost-competitive with fossil fuels in as little as a decade, thereby revolutionizing the energy industry far sooner than experts forecast.

Renewable-energy advocates are more circumspect. **Thomas Leyden** , a vice

president with the solar-development firm **PowerLight Corp.** , one of DestiNY's potential energy partners, said, "It may be the biggest solar installation and renewables project in the world, but there's no way DestiNY will move markets to that extent within a decade, or even move markets in any substantial way." Leyden pointed out that Germany is adding 600 to 800 MW of solar a year and Japan is in the same ballpark -- meaning that DestiNY is a drop in the bucket in terms of global economies of scale. "Nevertheless," he quickly added, "I applaud Congel's vision, and want to be a part of it."

Pietrafesa countered that the mega-mall's long-term impact on the energy economy will stem from its role as a trendsetter. Congel's team is in discussions with developers nationally and overseas who are eager "to create, as it were, their own DestiNYs," he said. He also predicted that the DestiNY model will "inspire visitors to make clean-energy decisions in their own lives," in turn moving markets from the grassroots.

But could a trend in green mega-malls backfire, if it means more people traveling farther distances to shop? Gupta pointed out that there's a contradiction inherent in a fossil-fuel-free tourist destination that requires a huge volume of fossil fuels to deliver the hordes of visitors expected daily -- whether by plane, train, car, or tour bus. "There's just no way around the fact that the energy associated with traveling to the mall would offset the environmental benefits of a fossil-fuel-free destination."

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And then, of course, there's the obvious fact that it's a *mall* -- a massive temple to American-style hyper-consumerism.

Still, all this doesn't negate the breathtaking ambition of Congel's plans to construct a zero-energy retail mecca -- a powerful symbol that profits and cheap fossil fuels aren't inextricably entwined. Who else in this country is willing to commit the staggering sum of an estimated \$20 billion to such a vision? Who else is willing to grandstand for renewables with a project as eccentric as a zero-energy mega-mall? At a time when Republican leaders are pushing a myopic, five-year-old energy bill with massive handouts to Big Oil and King Coal, Americans should applaud the optimism and sheer audacity of Congel's dream.

Muck it up: We welcome rumors, documents, or other useful tips on Beltway shenanigans, and the people 'em to muckraker@grist.org .

whistleblowing, classified environmental policies, behind them. Please send

Amanda Griscom Little writes Grist's Muckraker column on environmental politics and policy and interviews green luminaries for the magazine. Her articles on energy and the environment have also appeared in publications ranging from Rolling Stone to The New York Times Magazine.

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