The Catastrophe Waiting to Happen at Palisades

and What YOU Can Do to Prevent It!

Kevin Kamps, Beyond Nuclear
at KPL, 2/27/2012
“The Monster Up the Beach”
1967-1971: Nuclear Lemon
1970s: Cooling Towers
1971 to 1981: Embrittlement
Fermi 1

THIS IS NOT A NOVEL
THIS IS THE SHOCKING, TERRIFYING TRUTH!

COULD HIROSHIMA HAPPEN HERE?
IT COULD. IT ALMOST DID.

WE ALMOST LOST DETROIT

JOHN G. FULLER

author of FEVER!
Fermi 2
Fermi 3
1992 Walk Across America for Mother Earth
1992: Dry Cask Storage

Mary Sinclair, Don’t Waste MI

The Eternal General, Frank Kelley
Dry Cask Storage
Dry Cask Storage
Pool Storage
Pool Outside Containment

1. Refueling Machine
2. Upender Assembly
3. Transfer Tube
4. Upender Assembly - Spent Fuel
5. Spent Fuel Handling Machine
Fukushima Daiichi
Hydrogen explosions, large and “small”
20% of the world’s surface fresh water
“Don’t Cook the Great Lakes”
Yucca Mountain, Nevada
“Mobile Chernobyl!”
2005-2007: License Extension

Terry Lodge, Esquire

Atomic Safety (sic) and Licensing Board
1965-2007: Consumers

The Palisades Nuclear Power Plant

Highlights of Palisades include:

- Commenced commercial operation in 1971; current NRC operating license expires in 2011.
- License renewal application filed in March 2005; license renewal, anticipated early 2007, would extend the license to 2031.
- Qualified workforce of approximately 470 persons.
- Currently operated on behalf of Consumers by the Nuclear Management Company (NMC).
- Required significant future capital expenditures required above the routine $20M per year, including:
  * Reactor vessel head replacement
  * Steam generator replacement
  * Reactor vessel embrittlement concerns
  * Increasing NRC fees and fire protection requirements
  * Consumers coatings and ramp steels

Page 2
2007: Sale to Entergy Nuclear
The “Rogue Corporation’s” Dirty Dozen Atomic Reactors
Big Rock Point
(aka Plutonium State Park)
Environmental Racism: Barnwell, South Carolina
2007: “Zeke” the “Mercenary”
Congressional Watchdog, Ed Markey
Fred Upton
Deafening Silence
Bruce Radioactive Steam Generator Shipments on the Great Lakes
Bruce DUD
2007: Tritium Leaks
Erin Brockovitch of Nuclear Power
2011: Five “Un-planned Shutdowns”
2012 Showdowns

• Jan. 11\textsuperscript{th}
• Feb. 29\textsuperscript{th}
• March 21\textsuperscript{st}
• May 25\textsuperscript{th}
• Sept. 12\textsuperscript{th}
May 25th: Jaczko
August 12: CRDM leak
Nuclear “fixes”
Help Wanted
NRC Chairwoman Allison Macfarlane
Radioactive Risks
Shutdown Vermont Yankee!
Chris Williams, October 11th, WMU
Italy
Germany
Japan
A Lot to Lose
Updates since Sept. 2012

• Grassroots correspondence with NRC Chair Macfarlane
• Mid-Sept., 2012 NRC mtg., South Haven
• Mid-Sept.-late Sept., NRC supplemental inspection team
• Oct. 1, 2012 NRC webinar

• Early Oct. conference, Huron, OH
• Oct. 11 “Entergy Watch” presentation at WMU by Chris Williams
• Late Oct. Kewaunee closure announcement (half way to a Nuclear-Free Lake MI!)
More Updates

- Early December conference, Chicago (Arnie’s worry about Palisades)
- Mid-Dec., 2012 NRC dog and pony show in South Haven (Blinky B’Lingo)
- Jan. 12, 2013 NRC webinar
- Jan.-Feb. 2013 UBS analyses (see next slide)
- Jan. 15, 2013 – MI man sentenced to 5-year prison sentence for making false reports to FBI and USMS (including false bomb plot warning concerning Palisades)
- Feb. 3, 2013 – Entergy power outage at Super Bowl!
First shutdowns in 15 yrs:
• Kewaunee, WI shutdown by mid-2013
• Crystal River, FL shutdown, Feb. 2013
• Relatively small sized, single reactor nuclear power plants
• Age-degraded atomic reactors (expensive safety repairs)

Potentially imminent shutdowns:
• Vermont Yankee
• FitzPatrick, NY
• Pilgrim, MA
• Indian Point, NY
More Updates

• Feb. 8, 2013: Reuters reports that Entergy CEO Leo Denault says "He said “...some plants are in the more challenging economic situations for a variety of reasons, including 'the market for both energy and capacity, their size, their contracting positions and the investment required to maintain the safety and integrity of the plants.'"

• Feb. 19, 2013 NRC public notice of component cooling system leak (Entergy notified NRC on Feb. 14; problem began Feb. 8) – thus 11 day delay in public notification
Break-Down Phase Accidents

The Bathtub Curve

- **A**: Early Failure Period
- **B**: Intrinsic Failure Period
- **C**: Wearout Failure Period

Frequency of Events vs. Time
Break-Down Phase
Nuclear Accidents

A Bathtub Curve for Nuclear Accidents

Frequency of Equipment Failure

Time

Break-in phase

Three Mile Island
Chernobyl
Davis-Besse
Indian Point

Break-down phase