Risk thinking and nuclear power

Cathryn Carson
Societal Risks and the Law
Spring 2013
Next 4 classes (not Th 4/18)

- Intro reflections
- Risk & the trajectory of nuclear power
- Estimating risk of NPP accidents
- Nuclear waste & PRA
- Historicizing risk thinking
A historian’s commitments

- Alterity
- Particularity
- Perspective
- Pluralism
- Contingency
- Context
- Complexity
- Change
Sources of CA’s energy supply (2006)

Source: energy.ca.gov
For comparison: PG&E (2006)

Source: energy.ca.gov

- Natural Gas: 42%
- Large Hydro: 19%
- Renewables: 23%
- Coal: 13%
- Nuclear: 3%
Diablo Canyon 1 and 2 (PG&E)

Power reactors (a.k.a. nuclear power plants) operating in California

San Onofre 2 and 3 (mainly S. CA Edison) – well, currently shut down
Power reactors (a.k.a. nuclear power plants) no longer operating in California

Rancho Seco

Humboldt Bay 3
CA reactors, past and present

Power reactors – now operating
• Diablo Canyon (San Luis Obispo Co.)
• San Onofre 2&3 (San Diego Co.)

Power reactors – shut down
• Humboldt Bay (Humboldt Co.)
• Rancho Seco (Sacramento Co.)
• San Onofre 1 (San Diego Co.)

Power reactors – proposed but never built
• Point Arena (Mendocino Co.)
• Bodega Bay (Sonoma Co.)
• Davenport (Santa Cruz Co.)
• Malibu (Los Angeles Co.)
• Others, depending on how you count
The nuclear power plant at Point Arena – never built

Bodega Bay – the “Hole in the Head”
CA reactors, past and present

Power reactors – now operating
• Diablo Canyon (San Luis Obispo Co.)
• San Onofre 2&3 (San Diego Co.)

Power reactors – shut down
• Humboldt Bay (Humboldt Co.)
• Rancho Seco (Sacramento Co.)
• San Onofre 1 (San Diego Co.)

Power reactors – proposed but never built
• Point Arena (Mendocino Co.)
• Bodega Bay (Sonoma Co.)
• Davenport (Santa Cruz Co.)
• Malibu (Los Angeles Co.)
• Others, depending on how you count

Research & test reactors – now operating
• Aerotest (San Ramon)
• General Electric (Sunol)
• UC Davis (McClelland AFB ???)
• UC Irvine

Research and test reactors – shut down
• General Atomics (San Diego)
• Boeing-Rocketdyne Santa Susana Field Lab (N of Los Angeles)
• Vallecitos – General Electric (Sunol)
• UC Berkeley, UCLA, UCSB, Stanford, Cal Poly, others?
UC Berkeley’s nuclear reactor – operational 1966-1987
Power reactors (a.k.a. nuclear power plants) operating in California

Diablo Canyon 1 and 2 (PG&E)

San Onofre 2 and 3 (mainly S. CA Edison) – well, currently shut down
Sources of CA’s energy supply (2006)

Source: energy.ca.gov
For comparison: PG&E (2006)
Source: energy.ca.gov