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RADIOACTIVE CONTAMINATION AND CANCER
NEAR THE OYSTER CREEK NUCLEAR REACTOR

A presentation to the Atomic Safety and Licensing Board
of the U.S. Nuclear Regulatory Commission

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AIRBORNE EMISSIONS FROM U.S. NUCLEAR PLANTS
IODINE-131 AND PARTICULATES*, 1970-1993
(in curies)

1. Dresden IL	3 reactors	97.22
2. Oyster Creek NJ	1 reactor	77.05
3. Millstone CT	3 reactors	32.80
4. Quad Cities IL	2 reactors	26.95
5. Indian Point NY	3 reactors	17.50

* Radioactive chemicals with half life of 8 days or longer

Source: Tichler J et al. Radioactive Materials Released from Nuclear Power Plants. Upton NY: Brookhaven National Laboratories, for U.S. Nuclear Regulatory Commission, annual reports.

U.S. NUCLEAR REACTORS WITH HIGHEST GASEOUS AIRBORNE RELEASES
FOR VARIOUS RADIOACTIVE CHEMICALS, 2001-2004
(total U.S. reactors in operation = 103)

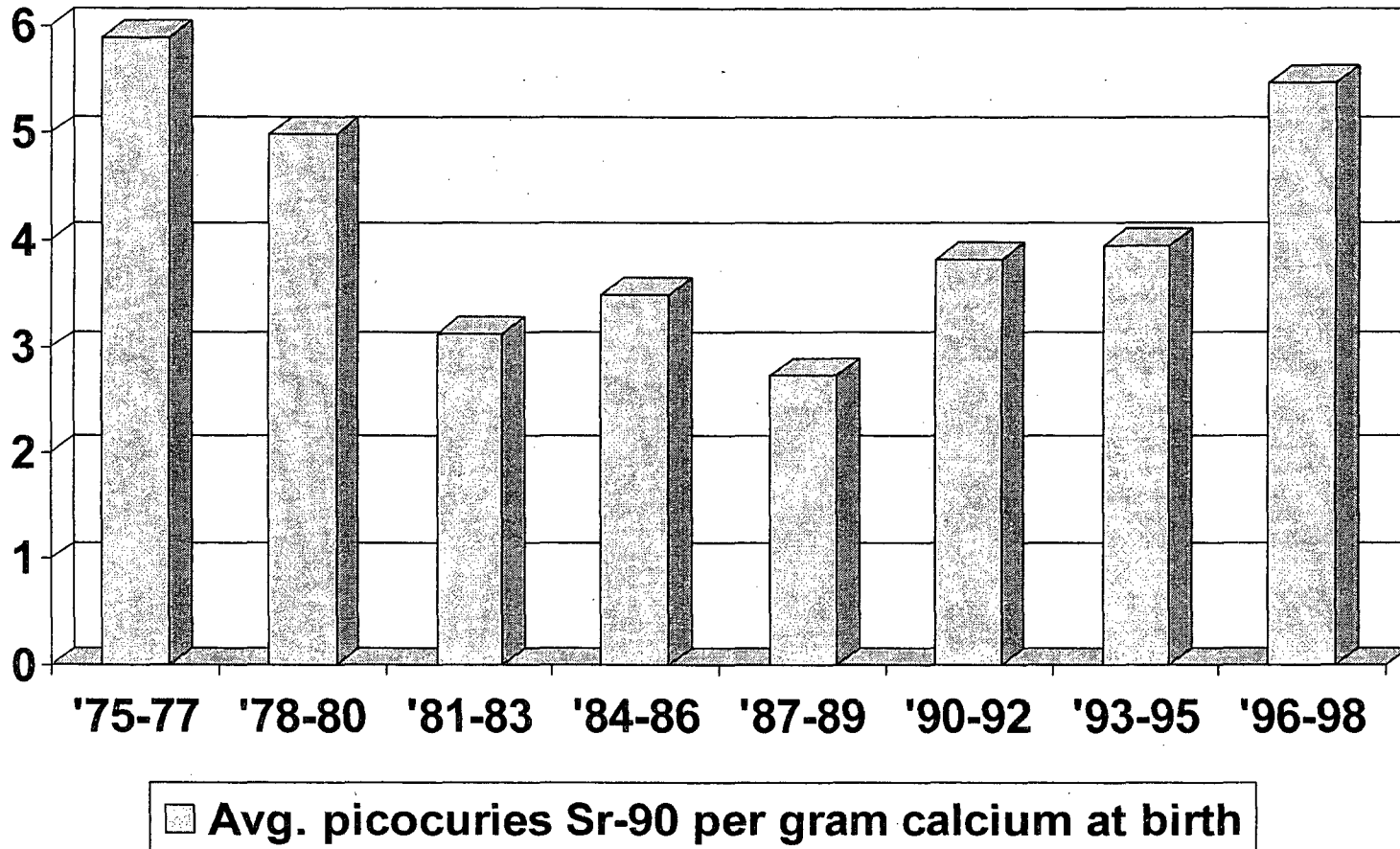
Total Fission Products	Oyster Creek rank =10
Total Iodine Isotopes	Oyster Creek rank = 5
Strontium-90	Oyster Creek rank = 2
Strontium-89	Oyster Creek rank = 1

Source: U.S. Nuclear Regulatory Commission, www.reirs.com/EDB/effluent.

Figure 1

Average Sr-90 in NJ Baby Teeth, by Birth Year

Source: Radiation and Public Health Project





<-- Bar Graph



<-- Site Comparison



<-- Help

Cancer Incidence Rates by County in New Jersey				
All Sites, 2000-2004				
County	Risk Population	Cases	Crude Rate	Age-Adjusted Rate
Cape May	508340	4403	866.1	612.1
Ocean	2675249	22629	845.9	602.4
Gloucester	1317340	7572	574.8	588.9
Monmouth	3136065	19082	608.5	583.8
Warren	535043	3218	601.5	581.3
Burlington	2185735	13115	600.0	580.2
Atlantic	1299902	8000	615.4	580.0
Sussex	743191	3901	524.9	578.9
Salem	323326	2093	647.3	578.4
Morris	2395015	14161	591.3	571.9
Camden	2559128	14709	574.8	571.3
Bergen	4471643	29687	663.9	567.6
Mercer	1789251	10216	571.0	566.0
Essex	3975961	21069	529.9	547.9
Middlesex	3846386	20477	532.4	538.6
Union	2641024	14897	564.1	535.6
Hunterdon	631805	3380	535.0	532.3
Somerset	1538355	7926	515.2	531.5
Cumberland	741770	3956	533.3	524.1
Passaic	2480327	12388	499.4	514.5
Hudson	3044995	13307	437.0	471.9
STATE	42839851	250186	584.0	556.9

Note: All rates are per 100,000. Rates are age-adjusted to the 2000 U.S. Standard Million Population.

Figure 3

1999-2004 Mortality, Ocean County vs. U.S. for Five Most Common Causes of Death, Whites

Source: National Center for Health Statistics, <http://wonder.cdc.gov>
Rates Adjusted to 2000 U.S. standard population
Five causes account for 83% of all U.S. deaths

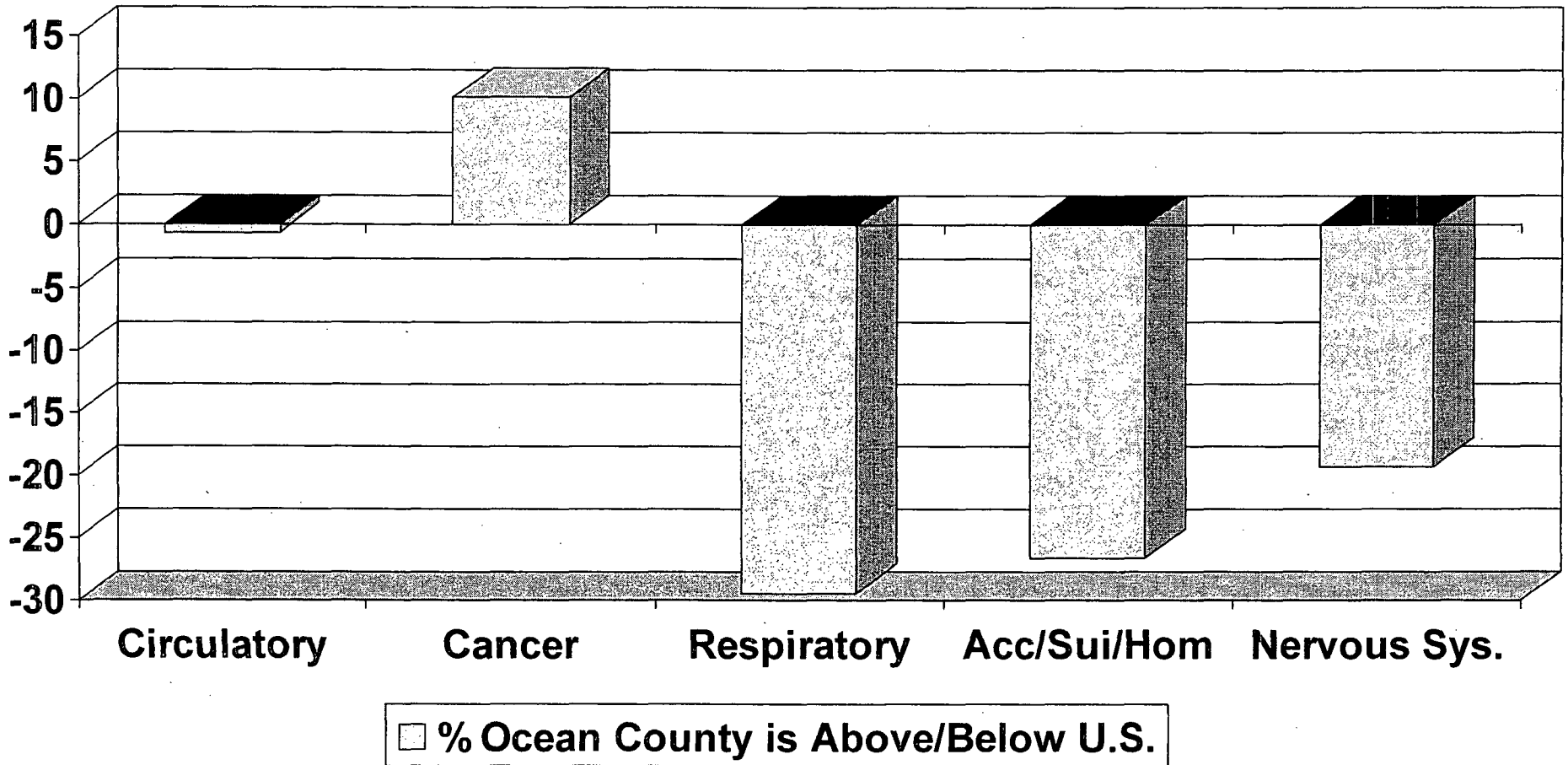


Figure 1
Sr-90 in Baby Teeth and Cancer Incidence 0-9
Monmouth/Ocean County, New Jersey

Picocuries Sr-90/g Calcium vs. Cancer Cases/20,000 Population
 Five year lag (Sr begins '80-2, Ca begins '85-7)

