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FREEDOM OF INFORMATION ACT (FOIA) REQUEST

NRC Freedom of Information Act and Privacy Act (FOIA/PA) Officer
U.S. Nuclear Regulatory Commission
Mail Stop T-5 F09
Washington, DC 20555-0001

FOIA/PA REQUEST

Case No.: 2012-0102
Date Rec'd: 12-30-11
Specialist: KILGORE
Related Case: _____

[emailed to FOIA.resource@nrc.gov]

To Whom It May Concern:

In 1994, the Nuclear Regulatory Commission (NRC) removed the requirement that nuclear power plants under its jurisdiction submit "termination reports" that documented an employee's lifetime radiation exposure for entry into the NRC REIRS database:

"Under the previous requirements of 10 CFR Part 20.1 through 20.602, seven classes of licensees were required to submit termination reports containing occupational radiation exposure data for the entire period of work or employment to the NRC when individuals terminated employment or a work assignment at their facilities. Thus, at the end of a worker's employment, the individual's entire exposure record would be part of NRC's exposure database. In addition, these licensees were required to submit a statistical summary of the exposures of all individuals occupationally exposed at their facilities.

Under the new requirements of 10 CFR 20.1001 through 20.2402, which became mandatory on January 1, 1994, these licensees are now required to annually submit occupational radiation exposure data to the NRC for all persons occupationally exposed at their facilities, during that year, for whom monitoring is required. **Termination reports are no longer required (emphasis added).**"¹

In addition, in 2007, the NRC revoked its requirement that nuclear power plants attempt to obtain lifetime occupational radiation exposure histories on most of their workers (Federal Register, Vol 72, No. 232):

"...this rule removes the requirement that licensees attempt to obtain cumulative exposure records for workers unless these individuals are being authorized to receive a planned special exposure."²

¹ Nuclear Regulatory Commission. NRC Generic Letter 94-04: Voluntary reporting of additional occupational radiation exposure data. September 2, 1994. Accessed December 29, 2011. <http://www.nrc.gov/reading-rm/doc-collections/gen-comm/gen-letters/1994/g194004.html>

² Nuclear Regulatory Commission 10 CFR Parts 19, 20, and 50 RIN 3150-AH40. Occupational Dose Records, Labeling Containers, and the Total Effective Dose Equivalent. Action: Final rule.

As a result, no NRC annual report going back to 1995 (the earliest publicly available report on the NRC website) presents lifetime exposure data for power plant employees.

The harmful health effects, mainly cancer, from low-dose radiation exposure are incurred over a lifetime in a dose-response fashion. It is extremely concerning, therefore, that the NRC does not collect, or even require employers to collect, data on lifetime radiation exposure to ensure that no, or as few as possible, workers are being exposed to excessive health risks over their working life. The NRC acknowledged the importance of such lifetime exposure data in a notice³ related to the 1994 rule change that began requiring annual exposure reporting, instead of (not in addition to) lifetime reports.

We, therefore, submit this FOIA request for aggregate data on lifetime occupational ionizing radiation exposure for workers at nuclear power plants under the NRC's jurisdiction that were sent to the NRC before 1994 in the form of "termination reports" (required under 10 CFR Part 20.1 through 20.602), and after 1994 through analyses of existing Form 4 records in the REIRS database.

Specifically, we request, by calendar year and individual nuclear facility, and for both terminated and current nuclear power plant employees:

- a) mean and median individual lifetime doses of whole body, and organ-specific, radiation (in rems);
- b) a distribution of individual lifetime radiation doses (whole body and organ-specific), with the number of workers exposed in each radiation dose category, similar to that provided in the NRC annual reports for annual exposures (see as an example Table 4.4 in the 2009 report below)⁴; and
- c) the distribution of individual annual and lifetime radiation doses (whole body and organ-specific) for pregnant workers.

³ Nuclear Regulatory Commission. NRC Generic Letter 94-04: Voluntary reporting of additional occupational radiation exposure data. September 2, 1994. The notice states that incomplete lifetime exposure records would have the following consequences: "First, NRC would not be able to continue to provide complete exposure histories to individuals to facilitate the movement of transient workers from one licensee to another. Second, actual lifetime exposures could not be determined for the occupationally exposed workers in the seven categories of licensees. Without this information, NRC may have difficulty in evaluating whether further limitations on occupational doses are needed to achieve dose levels recommended by the ICRP." Accessed December 29, 2011. <http://www.nrc.gov/reading-rm/doc-collections/gen-comm/gen-letters/1994/g194004.html>

⁴ NRC. Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities 2009. Table 4.4. Accessed on October 5, 2011. <http://www.reirs.com/nureg2009/nureg2009.pdf>

TABLE 4.4
Summary Distribution of Annual Whole-Body Doses at Commercial Light Water Reactors*
1994–2009

Year	No Measurable Exposure	Measurable <0.1	Number of Individuals with Whole Body Doses in the Ranges (rem) **														Total Number Monitored	Number with Measurable Exposure	Collective Dose*** (person-rem)	
			0.10- 0.25	0.25- 0.50	0.50- 0.75	0.75- 1.0	1.0- 2.0	2.0- 3.0	3.0- 4.0	4.0- 5.0	5.0- 6.0	6.0- 7.0	7.0- 8.0	8.0- 9.0	9.0- 10.0	10.0- 12.0				>12
1994	85,145	36,528	18,533	14,246	6,800	3,502	3,323	215	6	-	-	-	-	-	-	-	-	168,398	83,253	21,534,000
1995	81,032	38,576	20,245	15,279	6,884	3,336	3,077	125	5	-	-	-	-	-	-	-	-	168,558	87,526	21,674,000
1996	78,197	39,426	19,955	14,201	5,809	2,648	2,342	68	-	-	-	-	-	-	-	-	-	162,646	84,449	18,874,000
1997	80,163	41,759	19,951	13,396	5,394	2,240	1,671	59	3	-	-	-	-	-	-	-	-	164,636	84,473	17,136,000
1998	77,080	37,039	17,189	10,467	3,930	1,562	1,129	35	-	-	-	-	-	-	-	-	-	148,431	71,351	13,169,366
1999	74,867	39,663	18,063	10,964	3,994	1,569	1,141	24	2	-	-	-	-	-	-	-	-	150,287	75,420	13,665,711
2000	73,783	40,301	17,598	10,310	3,525	1,375	976	23	-	-	-	-	-	-	-	-	-	147,901	74,108	12,661,682
2001	73,206	37,461	16,078	9,231	2,930	1,060	747	63	-	-	-	-	-	-	-	-	-	140,776	67,570	11,108,552
2002	76,270	41,588	16,752	9,426	3,121	1,245	1,003	105	2	-	-	-	-	-	-	-	-	149,512	73,242	12,126,190
2003	77,889	42,720	17,231	9,589	3,139	1,233	854	37	-	-	-	-	-	-	-	-	-	152,702	74,813	11,955,570
2004	80,473	41,583	15,626	8,245	2,733	978	688	16	-	-	-	-	-	-	-	-	-	150,322	69,849	10,367,897
2005	82,574	46,444	17,754	9,191	2,934	1,104	683	17	-	-	-	-	-	-	-	-	-	160,701	78,127	11,455,807
2006	84,568	48,571	18,269	9,312	2,675	904	532	2	-	-	-	-	-	-	-	-	-	164,823	80,265	11,021,186
2007	84,551	49,998	17,672	8,294	2,329	824	402	11	-	-	-	-	-	-	-	-	-	164,081	79,530	10,120,013
2008	89,874	51,831	17,337	7,578	1,847	583	269	6	-	-	-	-	-	-	-	-	-	168,324	79,450	9,196,940
2009	94,627	52,670	17,417	8,352	2,161	741	413	-	-	-	-	-	-	-	-	-	-	176,381	81,754	10,024,804

* Summary of reports submitted in accordance with 10 CFR 20.407 or 20.2206 by BWRs and PWRs that had been in commercial operation for at least 1 full year as of December 31 of each of the indicated years. Figures shown have not been adjusted for the multiple reporting of transient individuals (see Section 5).

** Dose values exactly equal to the values separating ranges are reported in the next higher range.

*** The collective dose, when not reported by the licensee, was calculated by the NRC staff using methods described in Section 3.1.4.

Most, if not all, of these data are already electronically available (internally, not publicly) in the REIRS database,⁵ and each worker has a unique REIRS identifying number⁶ that would permit such analyses to be conducted quickly. We therefore look forward to a prompt response to our request.

Thank you,

Sammy Almashat, MD, MPH
Researcher

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⁵ NRC. REIRS Automated Dose History Request Form. Accessed on December 29, 2011.
<https://www.reirs.com/dosehist.cfm>

⁶ NRC. Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities 2009. Page 5-3. "The REIRS database stores the radiation dose information for an individual by his/her unique identification number and identification type." Accessed on October 5, 2011.
<http://www.reirs.com/nureg2009/nureg2009.pdf>

FOIA Resource

From: Sammy Almashat [salmashat@citizen.org]
Sent: Thursday, December 29, 2011 4:20 PM
To: FOIA Resource
Subject: FOIA request from Public Citizen
Attachments: Public Citizen FOIA to NRC for correspondence related to 1994 and 2007 occ rad exposure decisions.docx; Public Citizen FOIA to NRC for lifetime occ rad exposure data.docx

To Whom It May Concern:

Please find attached two FOIA requests from Public Citizen. If you have any questions, please contact me at the information below.

Thank you,

Sammy

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