NRC FORM 464 Part I	U.S. NUCLEAR REGULATORY COMMISSIO	N FOIA/PA	RESPONSE NUMBER
6-1998)  REGULATOR		2008-0046	22
RC FORM 464 Part I 6-1998)  EAR REGULATORY  STATE OF THE	RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST	RESPONSE TYPE FINAL	PARTIAL
REQUESTER		DATE	· · · · · · · · · · · · · · · · · · ·
	JOHNATHAN K. TYCKO		
	PART I INFORMATION RELEAS	ED	
No additional ag	gency records subject to the request have been located.		
	rds are available through another public distribution program	. See Comments section.	
APPENDICES AB	Agency records subject to the request that are identified in the public inspection and copying at the NRC Public Document I	ne listed appendices are alread Room.	dy available for
APPENDICES	Agency records subject to the request that are identified in the public inspection and copying at the NRC Public Document (	ne listed appendices are being Room.	made available for
Enclosed is info Document Room	rmation on how you may obtain access to and the charges fon, 11555 Rockville Pike, Rockville, MD 20852-2738.	or copying records located at the	ne NRC Public
APPENDICES AD	Agency records subject to the request are enclosed.		
Records subject referred to that a	t to the request that contain information originated by or of infagency (see comments section) for a disclosure determination	terest to another Federal agen on and direct response to you.	cy have been
We are continui	ng to process your request.	•	
See Comments.			
	PART I.A FEES	· · · · · · · · · · · · · · · · · · ·	
1 -	You will be billed by NRC for the amount listed.	None. Minimum fee thresh	old not met.
* See comments for details	You will receive a refund for the amount listed.	Fees waived.	
	PART I.B INFORMATION NOT LOCATED OR WITHHE	LD FROM DISCLOSURE	
No agency reco	ords subject to the request have been located.		
Certain information the reasons state	tion in the requested records is being withheld from disclosur ted in Part II.	e pursuant to the exemptions	described in and for
This determinat Washington, Do	ion may be appealed within 30 days by writing to the FOIA/P. C 20555-0001. Clearly state on the envelope and in the letter	A Officer, U.S. Nuclear Regula r that it is a "FOIA/PA  Appeal.	tory Commission,
	PART I.C COMMENTS (Use attached Comments conti	nuation page if required)	
The incoming FOIA/I	PA-2008-0046 is located in ADAMS at ML073190589.		
www.nrc.gov/reading	accession number are available in the NRC's Public Elect g-rm/adams/html. For assistance in obtaining any records 0-397-4209 or email at PDR.Resource@nrc.gov	tronic Reading Room at s, please contact the NRC's P	ublic Document
The fees for processing	ng you request is as follows:		
(156 profe	sional search hours @ \$51.49 per hour = \$3398.34) ssional review hours @ \$51.49 per hour = \$8032.44) oduced pages @ \$ .20 per pages = \$585.80)		
We received you adv	anced payment of \$11498.97 on 12/04/2007.		
SIGNATURE - FREEDOM OF INF	ORMATION SET AND PRIVACY ACT OFFICER	······	·

NRC FORM 464 Part II (2-2008)

U.S. NUCLEAR REGULATORY COMMISSION

FOIA/PA

DATE

AUG 2 9 2008

## RESPONSE TO ERFEDOM OF INFORMATION

		IVACY ACT (PA) REQUEST	2008-0046	700 20 1	
APPE	NDICES Records su	PART II.A APPLICABLE bject to the request that are described in the enclo	sed Appendices are being with	nheld in their entirety or	in part under the
	·	No.(s) of the PA and/or the FOIA as indicated belo	•	i.C. 552(b)).	,
H	•	neld information is properly classified pursuant to E neld information relates solely to the internal person		· ·	
		atters of a relatively trivial nature.	illerrules and procedures or is	iko.	
		atters of a relatively trivial nature.  e) would risk circumvention of a legal requirement.			
		,	· · · · · · · · · · · · · · · · · · ·	•	
		neld information is specifically exempted from public			
	2161-2165).	i of the Atomic Energy Act, which prohibits the disc			•
	Section 147 of the	e Atomic Energy Act, which prohibits the disclosure	e of Unclassified Safeguards Ir	formation (42 U.S.C. 2	167).
	41 U.S.C., Sectio agency to any per the submitter of the	n 253b, subsection (m)(1), prohibits the disclosure rson under section 552 of Title 5, U.S.C. (the FOIA ne proposal.	of contractor proposals in the ), except when incorporated in	possession and control to the contract between	of an executive the agency and
V	Exemption 4: The with	held information is a trade secret or commercial or	r financial information that is be	eing withheld for the rea	son(s) indicated.
L	L-X	s considered to be confidential business (proprieta	• /		
		s considered to be proprietary because it concerns am for special nuclear material pursuant to 10 CFF		sical protection or mate	rial control and
	, , , , , , , , , , , , , , , , , , , ,	vas submitted by a foreign source and received in		R 2.390(d)(2).	
	Disclosure will ha	ırm an identifiable private or governmental interest	•		
		sheld information consists of interagency or intraag ole privileges:	ency records that are not avail	able through discovery	during litigation.
	Deliberative proceediberative proceedibe	ess: Disclosure of predecisional information would ess. Where records are withheld in their entirety, the preasonably segregable factual portions because to cess of the agency.	t tend to inhibit the open and fr ne facts are inextricably intertw the release of the facts would p	ank exchange of ideas ined with the predecisio permit an indirect inquiry	essential to the nal information.
		oduct privilege. (Documents prepared by an attorn	ey in contemplation of litigation	n)	
	· ·	ivilege. (Confidential communications between an	*		
	Exemption 6: The with invasion	held information is exempted from public disclosur of personal privacy.	re because its disclosure would	fresult in a clearly unwa	arranted
	Exemption 7: The with indicated	sheld information consists of records compiled for l d.	,	,	
	<ul> <li>(A) Disclosure could reasonably be expected to interfere with an enforcement proceeding (e.g., it would reveal the scope, direction, and focus of enforcement efforts, and thus could possibly allow recipients to take action to shield potential wrongdoing or a violation of NRC requirements from investigators).</li> <li>(C) Disclosure would constitute an unwarranted invasion of personal privacy.</li> </ul>			irection, and violation of NRC	
	(D) The information consists of names of individuals and other information the disclosure of which could reasonably be expected to reveal				
	identities of confidential sources.  (E) Disclosure would reveal techniques and procedures for law enforcement investigations or prosecutions, or guidelines that could reasonably be expected to risk circumvention of the law.				
,,	(F) Disclosure could reasonably be expected to endanger the life or physical safety of an individual.				
	OTHER (Specify)				
	•				
		PART II.B DENYING			**************************************
Pursu that t intere denia	uant to 10 CFR 9.25(g) he information withheld est. The person respor als that may be appeald	<ul> <li>9.25(h), and/or 9.65(b) of the U.S. Nuclear d is exempt from production or disclosure, ar a sible for the denial are those officials identified to the Executive Director for Operations (better the contraction)</li> </ul>	Regulatory Commission rend that its production or disided below as denying official EDO).	gulations, it has bee closure is contrary to als and the FOIA/PA	n determined the public Officer for any
D	ENYING OFFICIAL	TITLE/OFFICE	RECORDS	DENIED APPE	LLATE OFFICIAL SECY IG
Eric .	J. Leeds	Director, NRR	Appendix AC, AD		
Jame	s L. Caldwell	Regional Administrator, RIII	Appendix AC	V	
^ = n a	1 1 1 alo in	iii alli a oo dayaa af aaaaint af thin yoonoon	- Ala abauld ba mail	- 14- 45- FOIA/Drive	A-t Officer
Appeal must be made in writing within 30 days of receipt of this response. Appeals should be mailed to the FOIA/Privacy Act Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, for action by the appropriate appellate official(s). You should clearly state on the envelope and letter that it is a "FOIA/PA Appeal."					

Re: FOIA 2008-0046

## APPENDIX AB RECORDS ALREADY PUBLICLY AVAILABLE

<u>NO.</u>	<u>DATE</u>	ACCESSION NUMBER	DESCRIPTION / (PAGE COUNT)
1.	01/31/2004	ML040350598	WCAP-16163-P, Revision 0, "Improved Flow Measurement Accuracy Using Crossflow Ultrasonic Flow Measurement Technology (21 pages).
2.	12/31/2004	ML082130109	"Assurance that Crossflow Technology, Installation, and Operation Maintain Design and Licensing Basis." (20 pages).
3.	05/31/2006	ML061570162	LTR-PS-06-24 P- Attachment, Statistical Comparison of Crossflow Test Data to Other High Precision Flow Instrumentation (23 pages).
4.	08/18/2005	ML052350672	Supporting Material for NRC Meeting Regarding Crossflow Ultrasonic Flow Measurement System Status, Crossflow Status Upgrade September 12, 2005, Proprietary Version (25 pages).
5.	09/12/2005	ML052560455	Westinghouse - Proprietary Meeting Slides 9/12/05, Crossflow (TAC No. MC1913) (23 pages).
6.	11/17/2005	ML053610205	Westinghouse Slides, "CROSSFLOW Ultrasonic Flow Measurement System." (39 pages).
7.	03/29/2006	ML061010244	LTR-NRC-06-13 P - Attachment "CROSSFLOW Ultrasonic Flow Measurement System - NRC Staff Meeting." (57 pages).
8.	05/31/2006	ML061570129	CENPD-397-P, Rev 1, Project Content for CROSSFLOW Topical Report Revision (12 pages)

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## APPENDIX AC RECORDS BEING WITHHELD IN THEIR ENTIRETY

NO.	DATE	DESCRIPTION / (PAGE COUNT) / (EXEMPTIONS)
1.	Undated	Westinghouse Briefing, CROSSFLOW Technology, (30 pages), EX 4.
2.	Undated	LIC-03-0122 Attachment 3, Calorimetric Uncertainty Evaluation (53 pages) EX 4.
3.	01/31/2002	Westinghouse Electric Company, LLC, Description of CrossflowXT Ultrasonic Flow Measurement System (6 pages) EX 4.
4.	04/11/2003	Revision 1, Change Number 110341 to Calculation CN-PS-02-25-P, "Determination of Uncertainty in Pilgrim Station Core Thermal Power Evaluation with Revised Crossflow Ultrasonic Feedwater Flow Measurement." Attachment 2, Letter Number 2.03.042 (164 pages) EX 4.
5.	09/26/2003	Westinghouse - Proprietary Meeting Slides - Crossflow root cause meeting September 26, 2003 (TAC MB1365) (38 pages) EX 4.
6.	10/31/2004	Enclosure 1-P to WOG-04-541 Comparison of CROSSFLOW and ASME Flow Section Feedwater Flow Measurement System, CROSSFLOW Status Update (35 pages) EX 4.
7.	06/30/2005	Westinghouse Owners Group Proprietary Guide, Information Copy of Crossflow Ultrasonic Flow Meter User Guidelines - WCAP-16437-P (TAC No. MC1913) (137 pages) EX 4.
8.	11/17/2005	Westinghouse Slides, "CROSSFLOW Ultrasonic Flow Measurement System." (15 pages) EX 4.
9.	04/28/2006	Westinghouse Slides for Crossflow UFM Meeting on 04/28/2006 (22 pages) EX 4.
10.	04/28/2006	Westinghouse Slides for Crossflow UFM Meeting on 04/28/2006 - Analytical Modeling of UFM (24 pages) EX 4.
11.	04/28/2006	Westinghouse Slides for Crossflow UFM Meeting o 04/28/206 - Performance Monitoring of UFM (60 pages) EX 4.
12.	04/28/2006	Presentation Material Used at April 28, 2006 Crossflow Meeting (107 pages) EX 4.
13.	06/01/2006	LTR-NRC-06-39 P, Response to NRC Draft Status Report on Crossflow Ultrasonic Flowmeter, June 2006 (81 pages) EX 4.

14. 05/03/2007 Presentation Materials Used at May 2-3, 2007 Meeting at ARL/PSU -Crossflowtm Ultrasonic Flow Measurement System Review Meeting (118 pages) EX 4. 03/31/2005 LIC-05-0023, Attachment 6, Appendix B to Attachment 2, Feedwater 15. Flow Measurement Using the Crossflow Ultrasonic Flowmenter at Fort Calhoun Nuclear Station, (Proprietary Calculation CN-PS-03-37, Rev 1) (351 pages) EX 4. CENPD-397-P-A, Rev 01, Improved Flow Measurement Accuracy Using 16. 5/31/2000 CROSSFLOW Ultrasonic Flow Measurement Technology (121 pages) (EX 4.

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## APPENDIX AD RECORDS BEING RELEASED IN PART

NO.	DATE	DESCRIPTION / (PAGE COUNT) / (EXEMPTIONS)
. <b>1</b> .	12/8/2003	Ltr from Hauser to Printz, Exelon Nuclear Byron and Braidwood Nuclear Statons <u>EXELON Frequency Spectrum Analysis Records</u> (4 pages) EX 4.
2.	05/03/2004	Ltr to Dembek, NRR, from J. Gresham, Westinghouse, "Comments on the Draft Report of the Ultrasonic Flow Meter Task Group." (3 pages) EX