



Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, Ohio 43449-9760

Guy G. Campbell
Vice President - Nuclear

419-321-8588
Fax: 419-321-8337

Attachments Contain Proprietary
Material Per 10 CFR 2.790

Docket Number 50-346

License Number NPF-3

Serial Number 2741

October 30, 2001

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: Responses to Requests for Additional Information Concerning NRC Bulletin
2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head
Penetration Nozzles"

Ladies and Gentlemen:

This letter provides responses to the Nuclear Regulatory Commission (NRC) staff's requests for additional information (RAIs) concerning the Davis-Besse Nuclear Power Station (DBNPS) response (FirstEnergy Nuclear Operating Company (FENOC) letter Serial Number 2731, dated September 4, 2001) to NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles." These RAIs were provided by facsimile transmission on October 19, 2001, to the DBNPS. The RAIs concerned the DBNPS response to NRC Bulletin 2001-01 and two reports that were transmitted from the DBNPS staff by electronic mail to the NRC staff on October 12, 2001 (Structural Integrity Associates, Inc. calculation file number W-ENTP-11Q-306, "Finite Element Gap Analysis of CRDM Penetrations" and Framatome-ANP Document Number 51-5012567-01, "RV Head Nozzle and Weld Safety Assessment"). Responses to these RAIs were generally discussed at the public meeting conducted at the NRC offices on October 24, 2001.

The transmittal of the aforementioned Structural Integrity Associates, Inc. and Framatome-ANP documents was also made by FENOC letter Serial Number 2735, dated October 17, 2001.

Information in this record was deleted
in accordance with the Freedom of Information
Act, exemptions 4
FOIA: 2001-229

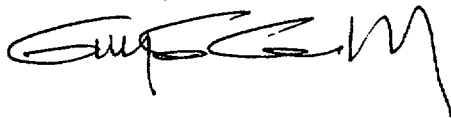
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Please be advised that Attachment 1 and Attachment 4 contain material (i.e., responses to RAIs; BAW-10190P, Addendum 2, dated 12/97; FRA-ANP Document 51-5013250-00, dated 6/01; FRA-ANP Document 32-5013346-01, dated 8/01; BAW-2213, dated 6/94; and FRA-ANP Document 32-5012403-00, dated 4/01) that is proprietary to Framatome ANP and should be withheld from public disclosure. In accordance with 10 CFR 2.790, affidavits providing the basis for withholding this information from public disclosure are provided in Attachment 5.

If you have any questions or require further information, please contact Mr. David H. Lockwood, Manager-Regulatory Affairs, at (419) 321-8450.

Very truly yours,

A handwritten signature in black ink, appearing to be "RMC/s", written in a cursive style.

RMC/s

Enclosure
Attachments

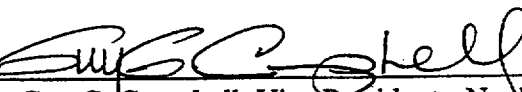
cc: J. E. Dyer, Regional Administrator, NRC Region III
S. P. Sands, DB-1 NRC/NRR Project Manager
D. S. Simpkins, DB-1 Acting Senior Resident Inspector
Utility Radiological Safety Board

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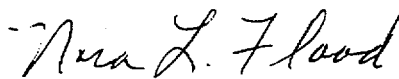
SUPPLEMENTAL INFORMATION
IN RESPONSE TO
NRC BULLETIN 2001-01
FOR
DAVIS-BESSE NUCLEAR POWER STATION
UNIT NUMBER 1

This letter is submitted pursuant to 10 CFR 50.54(f) and contains supplemental information concerning the response (Serial 2731, dated September 4, 2001) to NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles," for the Davis-Besse Nuclear Power Station, Unit Number 1.

I, Guy G. Campbell, state that (1) I am Vice President - Nuclear of the FirstEnergy Nuclear Operating Company, (2) I am duly authorized to execute and file this certification on behalf of the Toledo Edison Company and The Cleveland Electric Illuminating Company, and (3) the statements set forth herein are true and correct to the best of my knowledge, information and belief.

By: 
Guy G. Campbell, Vice President - Nuclear

Affirmed and subscribed before me this 30th day of October, 2001.


Notary Public, State of Ohio - Nora L. Flood
My commission expires September 4, 2002.

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10 CFR 2.790 Affidavits

- a) Serial Number 2741 Attachment 1 Affidavit (3 Pages)
- b) Serial Number 2741 Attachment 5 Affidavit (3 Pages)

AFFIDAVIT

STATE OF WASHINGTON)
) ss.
COUNTY OF BENTON)

1. My name is C. M. Powers. I am Vice President, Quality for Framatome ANP ("FRA-ANP"), and as such I am authorized to execute this Affidavit.

2. I am familiar with the criteria applied by FRA-ANP to determine whether certain FRA-ANP information is proprietary. I am familiar with the policies established by FRA-ANP to ensure the proper application of these criteria.

3. I am familiar with the FRA-ANP information included in the Attachment to the letter, Serial No. 2741 from Guy G. Campbell to the Document Control Desk. These materials are referred to herein as "Documents." Information contained in these Documents has been classified by FRA-ANP as proprietary in accordance with the policies established by FRA-ANP for the control and protection of proprietary and confidential information.

4. These Documents contain information of a proprietary and confidential nature and is of the type customarily held in confidence by FRA-ANP and not made available to the public. Based on my experience, I am aware that other companies regard information of the kind contained in these Documents as proprietary and confidential.

5. These Documents have been made available to the U.S. Nuclear Regulatory Commission in confidence with the request that the information contained in the Documents be withheld from public disclosure.

6. The following criteria are customarily applied by FRA-ANP to determine whether information should be classified as proprietary:

- (a) The information reveals details of FRA-ANP's research and development plans and programs or their results.
- (b) Use of the information by a competitor would permit the competitor to significantly reduce its expenditures, in time or resources, to design, produce, or market a similar product or service.
- (c) The information includes test data or analytical techniques concerning a process, methodology, or component, the application of which results in a competitive advantage for FRA-ANP.
- (d) The information reveals certain distinguishing aspects of a process, methodology, or component, the exclusive use of which provides a competitive advantage for FRA-ANP in product optimization or marketability.
- (e) The information is vital to a competitive advantage held by FRA-ANP, would be helpful to competitors to FRA-ANP, and would likely cause substantial harm to the competitive position of FRA-ANP.

7. In accordance with FRA-ANP's policies governing the protection and control of information, proprietary information contained in these Documents has been made available, on a limited basis, to others outside FRA-ANP only as required and under suitable agreement providing for nondisclosure and limited use of the information.

8. FRA-ANP policy requires that proprietary information be kept in a secured file or area and distributed on a need-to-know basis.

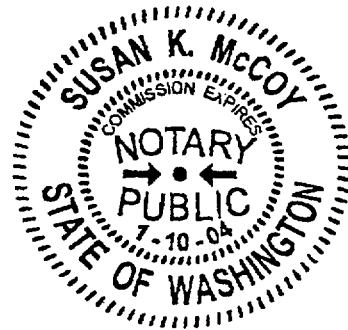
9. The foregoing statements are true and correct to the best of my knowledge, information, and belief.

CM Powers

SUBSCRIBED before me this 30th
day of October, 2001.

Susan K McCoy

Susan K. McCoy
NOTARY PUBLIC, STATE OF WASHINGTON
MY COMMISSION EXPIRES: 1/10/04



AFFIDAVIT

COMMONWEALTH OF VIRGINIA)
) ss.
CITY OF LYNCHBURG)

1. My name is James F. Mallay. I am Director, Regulatory Affairs, for Framatome ANP ("FRA-ANP"), and as such I am authorized to execute this Affidavit.

2. I am familiar with the criteria applied by FRA-ANP to determine whether certain FRA-ANP information is proprietary. I am familiar with the policies established by FRA-ANP to ensure the proper application of these criteria.

3. I am familiar with the FRA-ANP information included in the attachment to the response to the RAI set forth in FRA-14. A number of the reports included in this attachment contain material that is proprietary to FRA-ANP: specifically, BAW-10190P, Add. 2 (dated 12/97); 51-5013250-00 (6/01); 32-5013346-01 (8/01); BAW-2213 (6/94); and 32-5012403-00 (4/01). These reports are referred to herein as "Documents." Information contained in these Documents has been classified by FRA-ANP as proprietary in accordance with the policies established by FRA-ANP for the control and protection of proprietary and confidential information.

4. These Documents contain information of a proprietary and confidential nature and is of the type customarily held in confidence by FRA-ANP and not made available to the public. Based on my experience, I am aware that other companies regard information of the kind contained in these Documents as proprietary and confidential.

5. These Documents have been made available to the U.S. Nuclear Regulatory Commission in confidence with the request that the information contained in these Documents be withheld from public disclosure.

6. The following criteria are customarily applied by FRA-ANP to determine whether information should be classified as proprietary:

- (a) The information reveals details of FRA-ANP's research and development plans and programs or their results.
- (b) Use of the information by a competitor would permit the competitor to significantly reduce its expenditures, in time or resources, to design, produce, or market a similar product or service.
- (c) The information includes test data or analytical techniques concerning a process, methodology, or component, the application of which results in a competitive advantage for FRA-ANP.
- (d) The information reveals certain distinguishing aspects of a process, methodology, or component, the exclusive use of which provides a competitive advantage for FRA-ANP in product optimization or marketability.
- (e) The information is vital to a competitive advantage held by FRA-ANP, would be helpful to competitors to FRA-ANP, and would likely cause substantial harm to the competitive position of FRA-ANP.

7. In accordance with FRA-ANP's policies governing the protection and control of information, proprietary information contained in these Documents has been made available, on a limited basis, to others outside FRA-ANP only as required and under suitable agreement providing for nondisclosure and limited use of the information.

8. FRA-ANP policy requires that proprietary information be kept in a secured file or area and distributed on a need-to-know basis.

9. The foregoing statements are true and correct to the best of my knowledge,
information, and belief.

James R. Mally

SUBSCRIBED before me this 19th
day of October, 2001.

Danita R. Kidd

Danita R. Kidd
NOTARY PUBLIC, STATE OF VIRGINIA
MY COMMISSION EXPIRES: 12/31/04

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COMMITMENT LIST

The following list identifies those actions committed to by the Davis-Besse Nuclear Power Station (DBNPS) in this document. Any other actions discussed in the submittal represent intended or planned actions the DBNPS. They are described only for information and are not regulatory commitments. Please notify the Manager - Regulatory Affairs (419-321-8450) at the DBNPS of any questions regarding this document or associated regulatory commitments.

COMMITMENTS

DUE DATE

The recommended crack growth rate developed by the MRP expert panel will be used by the DBNPS to verify and/or update RPV CRDM nozzle evaluations to determine if any aspects of the current plans may require refinement.

Ongoing until March 2002 RFO

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Nozzle No.	Core Locat.	Quadrant	1996 Inspection results	1998 Inspection results	2000 Inspection results
			See Note 1.0		
1	H8	1		Flange Leak Evident	Flange Leak Evident
2	G7	4		Flange Leak Evident	Flange Leak Evident
3	G9	1		Flange Leak Evident	Flange Leak Evident
4	K9	2		Flange Leak Evident	Flange Leak Evident
5	K7	3		Flange Leak Evident	Flange Leak Evident
6	F8	1		Flange Leak Evident	Flange Leak Evident
7	H10	2		Flange Leak Evident	Flange Leak Evident
8	L8	3		No Leak Observed	No Leak Observed
9	H6	4		No Leak Observed	No Leak Observed
10	F6	4		No Leak Observed	No Leak Observed
11	F10	1		Flange Leak Evident	Flange Leak Evident
12	L10	2		No Leak Observed	No Leak Observed
13	L6	3		No Leak Recorded	No Leak Observed
14	E7	4		Flange Leak Evident	Flange Leak Evident
15	E9	1		Flange Leak Evident	Flange Leak Evident
16	G11	1		Flange Leak Evident	Flange Leak Evident
17	K11	2		No Leak Observed	No Leak Observed
18	M9	2		No Leak Recorded	No Leak Observed
19	M7	3		No Leak Observed	No Leak Recorded
20	K5	3		No Leak Observed	No Leak Observed
21	G5	4		No Leak Observed	No Leak Observed
22	D8	1		Flange Leak Evident	Flange Leak Evident
23	H12	2		No Leak Observed	No Leak Observed
24	N8	3		No Leak Recorded	No Leak Recorded
25	H4	4		No Leak Recorded	No Leak Observed
26	E5	4		No Leak Recorded	No Leak Observed
27	E11	1		Flange Leak Evident	Flange Leak Evident
28	M11	2		No Leak Recorded	No Leak Observed
29	M5	3		No Leak Recorded	No Leak Observed
30	D6	4		No Leak Observed	No Leak Observed
31	D10	1		Flange Leak Evident	Flange Leak Evident
32	F12	1		Flange Leak Evident	Flange Leak Evident
33	L12	2		No Leak Recorded	No Leak Observed
34	N10	2		No Leak Recorded	No Leak Observed
35	N6	3		No Leak Recorded	No Leak Recorded
36	L4	3		No Leak Recorded	No Leak Observed
37	F4	4		No Leak Recorded	No Leak Observed
38	C7	4		No Leak Recorded	Flange Leak Evident
39	C9	1		Flange Leak Evident	Flange Leak Evident
40	G13	1		Flange Leak Evident	Flange Leak Evident
41	K13	2		No Leak Recorded	No Leak Observed
42	O9	2		No Leak Recorded	No Leak Recorded

Nozzle No.	Core Locat.	Quadrant	1996 Inspection results	1998 Inspection results	2000 Inspection results
43	O7	3		No Leak Recorded	No Leak Recorded
44	K3	3		No Leak Recorded	No Leak Observed
45	G3	4		No Leak Recorded	No Leak Observed
46	D4	4		No Leak Recorded	No Leak Observed
47	D12	1		Flange Leak Evident	Flange Leak Evident
48	N12	2		No Leak Recorded	No Leak Observed
49	N4	3		No Leak Recorded	No Leak Observed
50	C5	4		No Leak Recorded	No Leak Observed
51	C11	1		Flange Leak Evident	Flange Leak Evident
52	E13	1		No Leak Recorded	Flange Leak Evident
53	M13	2		No Leak Recorded	No Leak Observed
54	O11	2		No Leak Recorded	No Leak Observed
55	O5	3		No Leak Recorded	No Leak Recorded
56	M3	3		No Leak Recorded	No Leak Observed
57	E3	4		No Leak Recorded	No Leak Observed
58	B8	1		No Leak Recorded	Flange Leak Evident
59	H14	2		No Leak Recorded	No Leak Observed
60	P8	3		No Leak Recorded	No Leak Recorded
61	H2	4		No Leak Recorded	No Leak Observed
62	B6	4		No Leak Recorded	No Leak Observed
63	B10	1		No Leak Recorded	Flange Leak Evident
64	F14	1		No Leak Recorded	Flange Leak Evident
65	L14	2		No Leak Recorded	No Leak Observed
66	P10	2		No Leak Recorded	No Leak Recorded
67	P6	3		No Leak Recorded	No Leak Recorded
68	L2	3		No Leak Recorded	No Leak Observed
69	F2	4		No Leak Recorded	No Leak Observed

Notes:

- 1 In 1996 during 10 BEO, the entire RPV head was inspected.
Since the video was void of head orientation narration, each specific nozzle view could not be correlated.

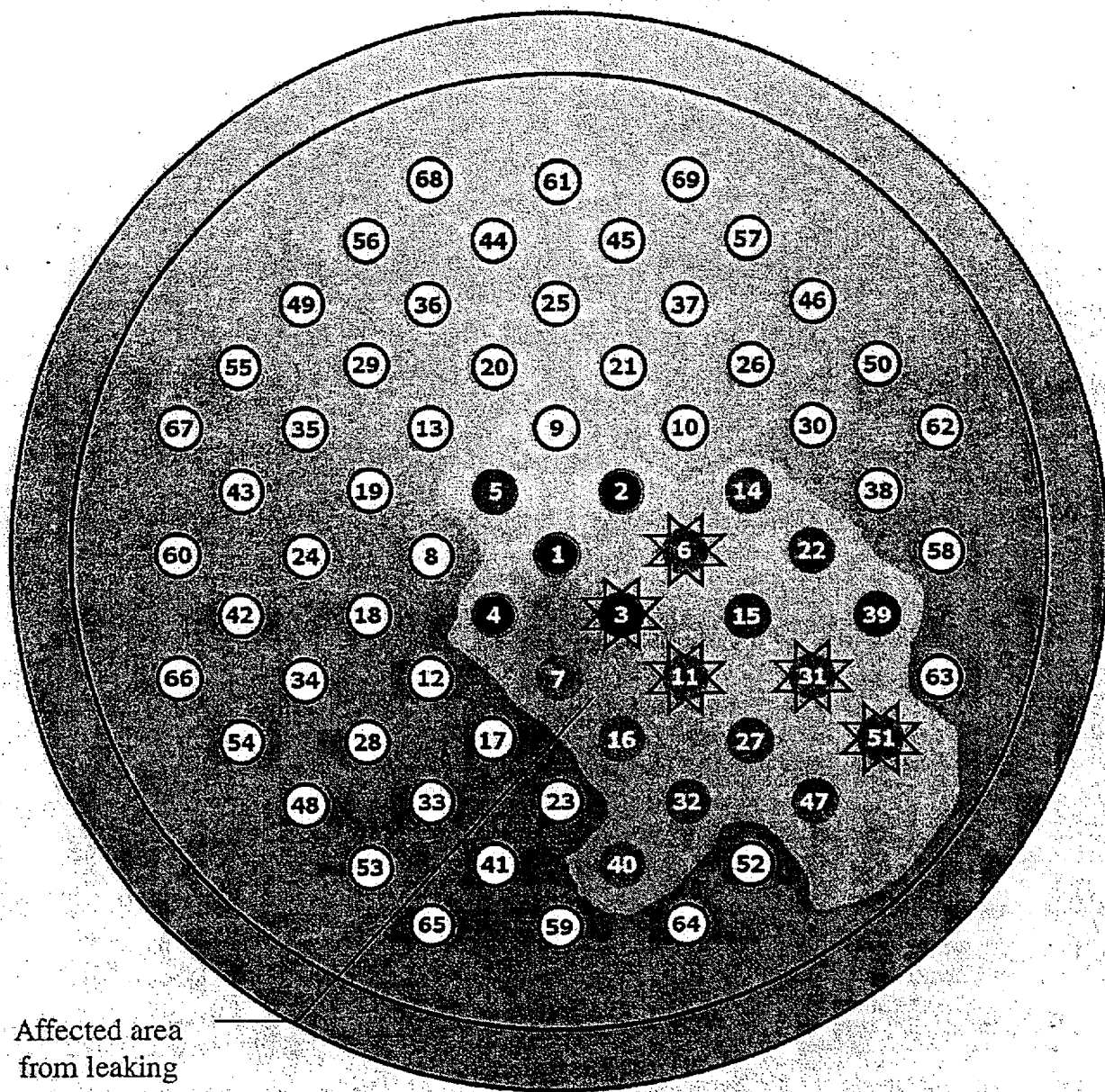
Bold letters indicate leaking CRDM bolting flanges discovered and repaired during 12 RFO (April 2000).
No Leak Observed = Visual Inspection Satisfactory, No Video Record Required.
No Leak Recorded = Nozzle inspection recorded on videotape
Italicized text indicates nozzles that are not expected to show leakage due to insufficient gap.

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RPV Head Inspection Results
From 10RFO, 11RFO, and 12RFO

(3 Pages Follow)

RPV Head 11 RFO Inspection Results

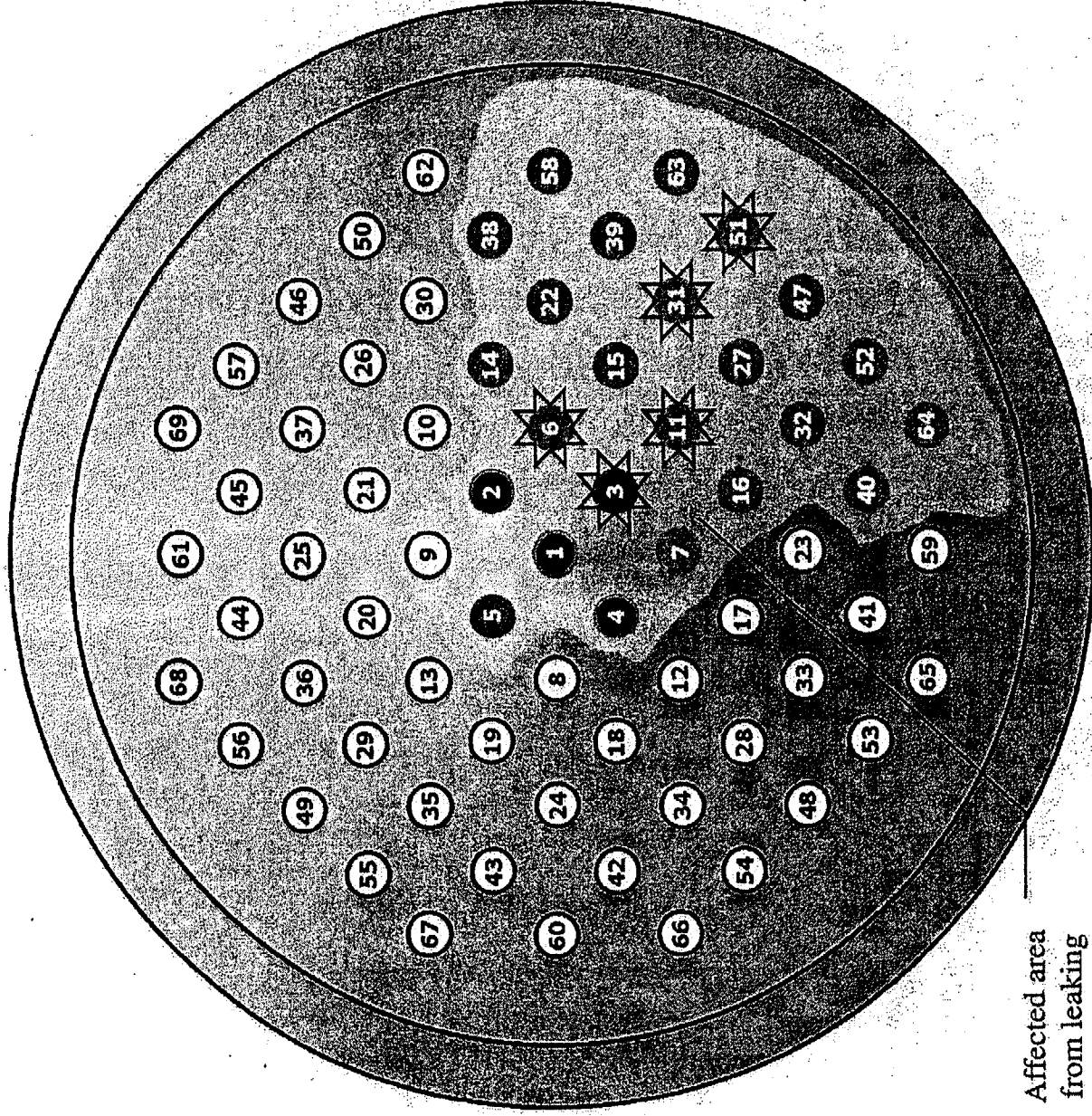


Affected area
from leaking
flange(s)

- (1) - No leakage identified
- (4) - Evaluated not to have sufficient gap to exhibit leakage
- (3) - Insufficient gap with leaking flange
- (5) - Nozzle obscured by boron
- (6) - Nozzle obscured by boron with leaking flange

C 01

RPV Head 12 RFO Inspection Results

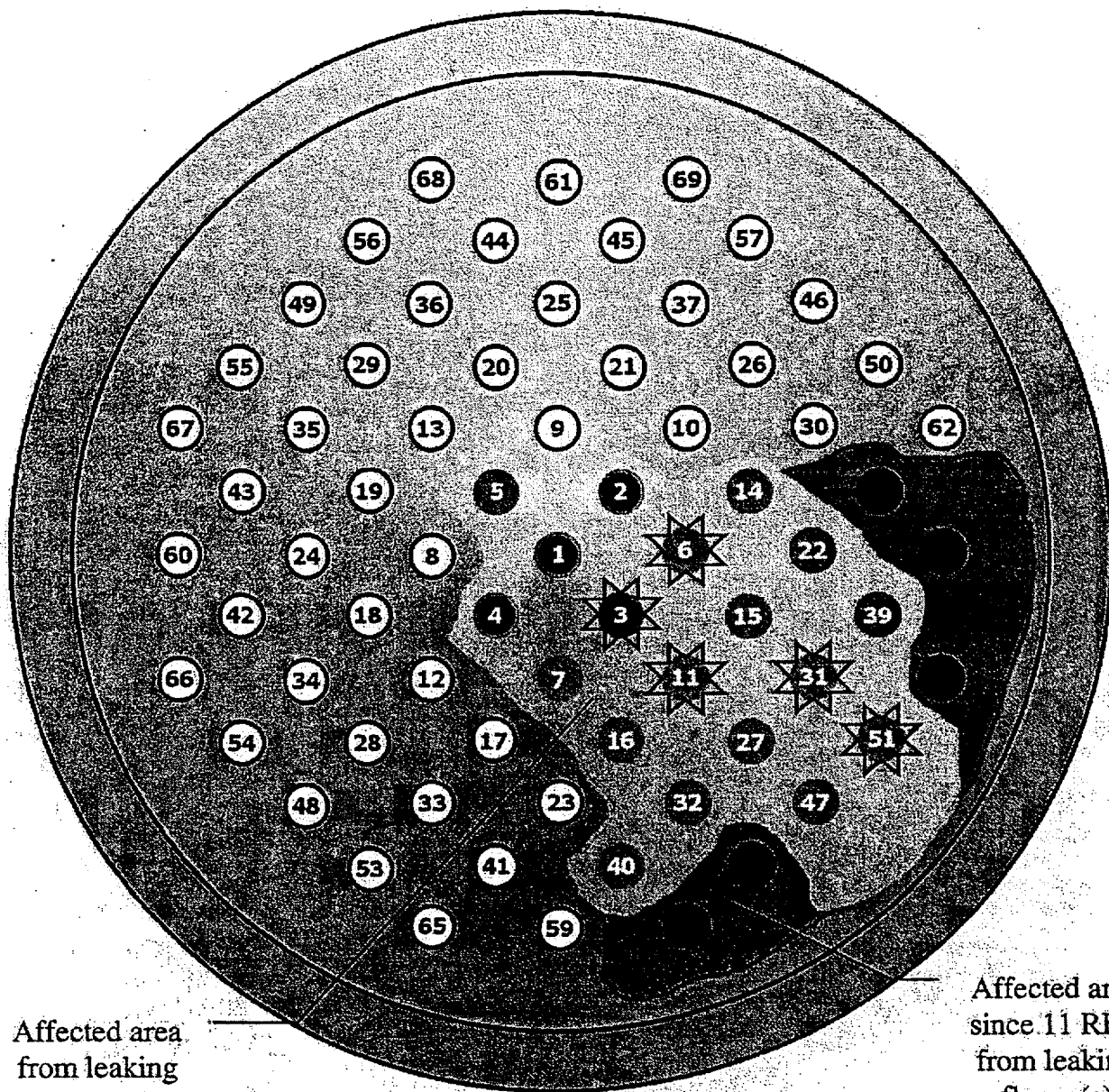


Affected area
from leaking
flange(s)

- (61) - No leakage identified
- (4) - Evaluated not to have sufficient gap to exhibit leakage
- (3) - Insufficient gap with leaking flange
- (5) - Nozzle obscured by boron
- (6) - Nozzle obscured by boron with leaking flange

C02

RPV Head 11 & 12 RFO Inspection Results



Affected area
from leaking
flange(s)

Affected area
since 11 RFO
from leaking
flange(s)

- ⑥① - No leakage identified
- ④ - Evaluated not to have sufficient gap to exhibit leakage
- ✱ - Insufficient gap with leaking flange
- ⑤ - Nozzle obscured by boron
- ✱ - Nozzle obscured by boron with leaking flange
- - Newly affected, since 11 RFO, by leaking flange(s)

C03