



**FORM VT-3C**  
 CONTAINMENT INSERVICE INSPECTION  
 RECORD OF VT-3C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-35  
 ZONE NUMBER: IWL-148-006 DRAWING NO.: 320869  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work order No. NP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack	X				2
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling	X				3,4
7.1.1.f Corrosion staining			X		
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel	X				3,4
7.1.1.j Coating deterioration				X	
Other		X			1

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/25/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No  (VT-1C Examination Required)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature: *R. Namperumal* Date: 6/20/00

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**FORM VT-1C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-1C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-35  
 ZONE NUMBER: IWL-148-006 DRAWING NO.: 320869  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work order No. NP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack	X				2
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling	X				3,4
7.1.1.f Corrosion staining			X		
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel	X				3,4
7.1.1.j Coating deterioration				X	
Other		X			1

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/25/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable: Yes  No   
 Engineering Evaluation Required: Yes  No  Evaluation No.: CRS 2000 04138

Comments: The surface texture (comment #1) resulted from original construction and does not reflect degradation of the containment. The leaching (comment #2) is not significant. Engineer evaluation is needed for the reinforcing steel (comments #3 & #4).

Signature: *R. Namperumal* Date: 6/30/01

AUTHORIZED NUCLEAR INSPECTOR (ANII) REVIEW:

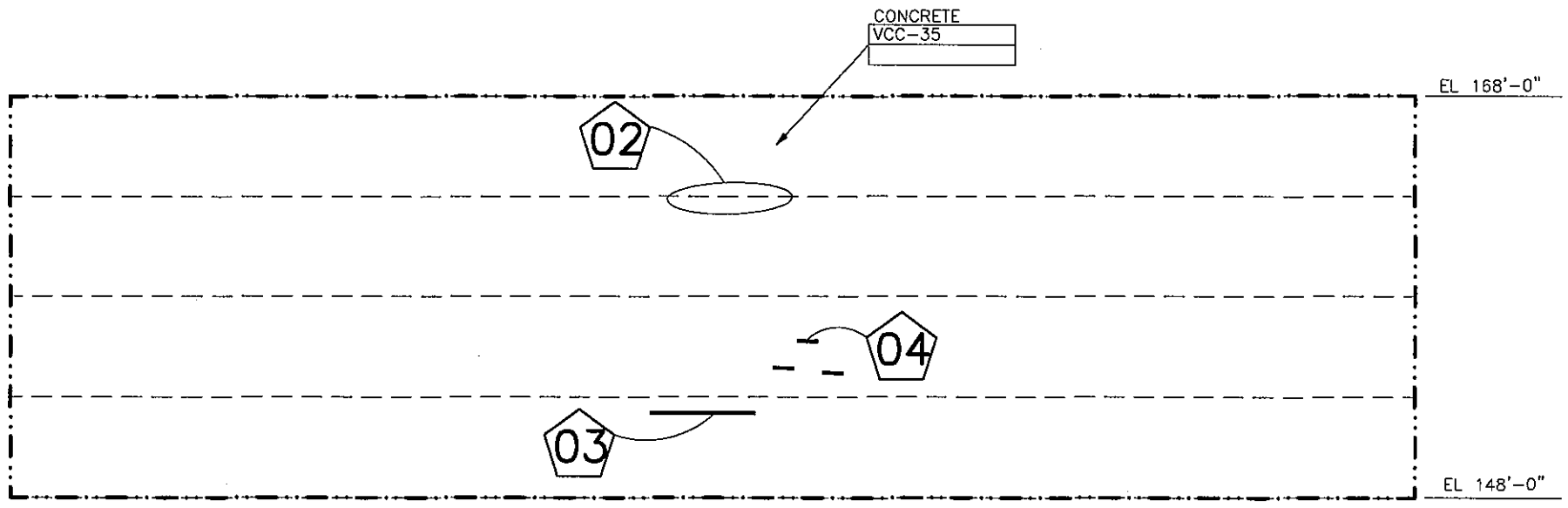
Signature: \_\_\_\_\_ Date: \_\_\_\_\_



FORM VT-3C (cont.)  
CONTAINMENT INSERVICE INSPECTION  
RECORD OF VT-3C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-35

No.	Comment	Initials
1	Non-uniformity of surface color and texture observed at various locations in the zone. The condition does not indicate significant material deterioration of the concrete.	RW
2	White desposit from concrete cover patch over exposed rebar at construction joint 6" long. See photos 00052606 and 00052607	RW
3	Cadweld exposure from 9" long concrete spalling. See photo 00052609	RW
4	Rebar exposure at 3 spots, 1" to 3" long due to 1/2" cover concrete spall. See photo 00052608	RW



**CONCRETE INSPECTION ZONE IWL-148-006**  
 (EXTERIOR DEVELOPED VIEW, LOOKING FROM OUTSIDE)

 -DENOTES COMMENT NUMBER ON INSPECTION FORM.



IWL-148-006

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IWL-148-006



IWL-148-006

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00052609.jpg

IWL-148-006



**FORM VT-3C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-36  
 ZONE NUMBER: IWL-168-001 DRAWING NO.: 320870  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work Order No. NP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack	X				2,3
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling			X		
7.1.1.f Corrosion staining			X		
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other		X			1

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/26/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable: Yes  No  (VT-1C Examination Required)

Comments: The surface texture (comment #1) resulted from original construction and does not reflect degradation of the containment. The leaching (comment #2) is not structurally significant.

Signature: *R. Namperumal* Date: 6/30/00

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

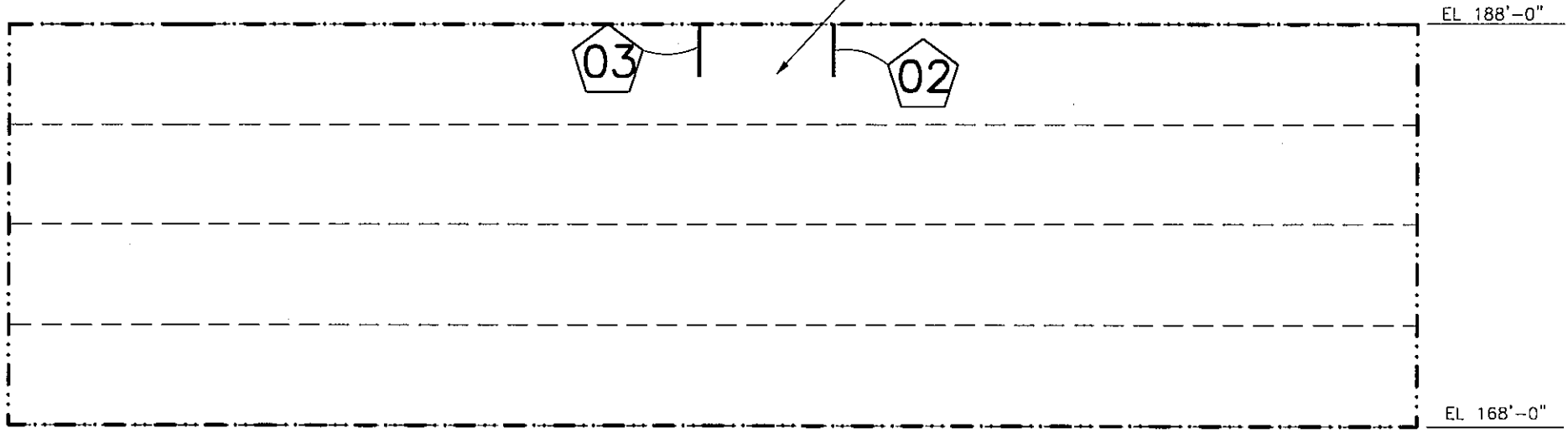


**FORM VT-3C (cont.)**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-36

No.	Comment	Initials
1	Non-uniformity of surface color and texture observed at various locations in the zone. The condition does not indicate significant material deterioration of the concrete.	RW
2	minor leaching from dome spring line construction joint	RW
3	2' long leaching from dome spring line construction joint	RW

CONCRETE  
VCC-36



**CONCRETE INSPECTION ZONE IWL-168-001**  
(EXTERIOR DEVELOPED VIEW, LOOKING FROM OUTSIDE)



-DENOTES COMMENT NUMBER ON INSPECTION FORM.



**FORM VT-3C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-37  
 ZONE NUMBER: IWL-168-002 DRAWING NO.: 320871  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work Order No. NP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling	X				4
7.1.1.f Corrosion staining	X				2,3
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other		X			1

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: C. Sward *Chris Sward* DATE: 5/31/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No  (VT-1C Examination Required)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature: *Chris Sward* Date: 6/20/00

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



**FORM VT-1C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-1C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-37  
 ZONE NUMBER: IWL-168-002 DRAWING NO.: 320871  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work Order No. NP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling	X				4
7.1.1.f Corrosion staining	X				2,3
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other		X			1

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: C. Sward *Chris Sward* DATE: 5/31/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable: Yes  No

Engineering Evaluation Required: Yes  No  Evaluation No.: CRS 2000 04138

Comments: The surface texture (comment #1) resulted from original construction and does not reflect degradation of the containment. Engineering evaluation is needed for the rebar issues (comments #2, #3 & #4).

Signature: *BA Sk* Date: 6/20/00

AUTHORIZED NUCLEAR INSPECTOR (ANII) REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



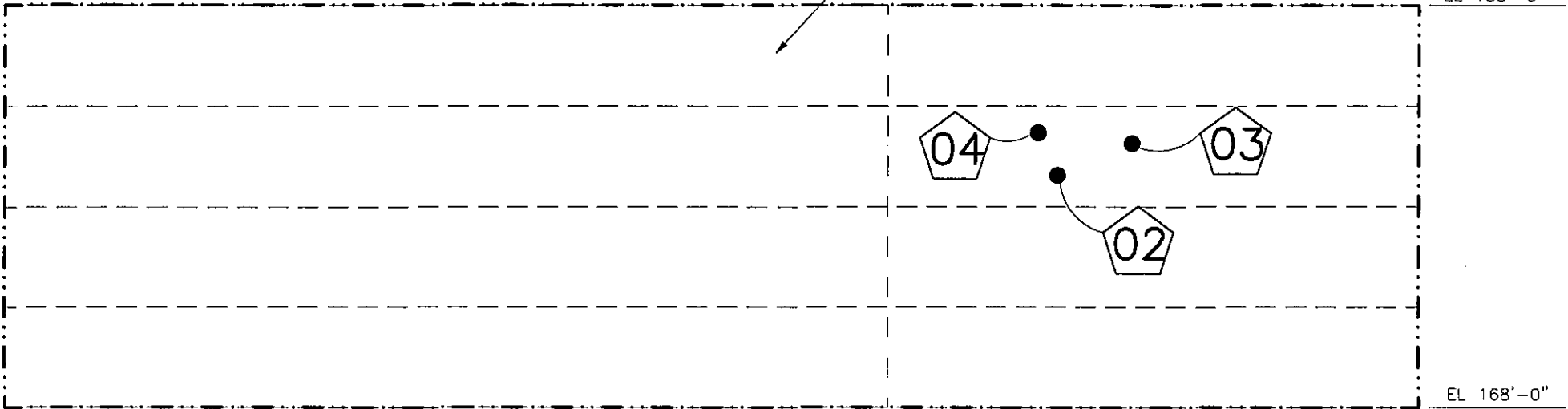
FORM VT-3C (cont.)  
CONTAINMENT INSERVICE INSPECTION  
RECORD OF VT-3C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-37

No.	Comment	Initials
1	Non-uniformity of surface color and texture observed at various locations in the zone. The condition does not indicate significant material deterioration of the concrete.	CAS
2	A small spot of steel is exposed and corroded. It is not known whether this is reinforcing steel. See photo 00053142	CAS
3	A small spot of steel is exposed and corroded. It is not known whether this is reinforcing steel. See photo 00053143	CAS
4	The concrete has cracked & bulged in a small area that is likely to spall off. By comparison to other similar areas it is believed to be a cadweld or reinforcing steel which is corroded due to insufficient concrete cover. See photo 00053144	CAS

CONCRETE  
VCC-37

EL. 188'-0"



**CONCRETE INSPECTION ZONE IWL-168-002**  
(EXTERIOR DEVELOPED VIEW, LOOKING FROM OUTSIDE)



-DENOTES COMMENT NUMBER ON INSPECTION FORM.



IWL-168-002

00053142.jpg





IWL-168-002

00053143.jpg



IWL-168-002

00053144.jpg



**FORM VT-3C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-38  
 ZONE NUMBER: IWL-168-003 DRAWING NO.: 320872  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work Order No. NP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids	X				2
7.1.1.d Scaling			X		
7.1.1.e Spalling	X				3
7.1.1.f Corrosion staining			X		
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel	X				2,3,4
7.1.1.j Coating deterioration				X	
Other		X			1

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/26/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No  (VT-1C Examination Required)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature: *R. Namperumal* Date: 6/30/00

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**FORM VT-1C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-1C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-38  
 ZONE NUMBER: IWL-168-003 DRAWING NO.: 320872  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work Order No. NP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids	X				2
7.1.1.d Scaling			X		
7.1.1.e Spalling	X				3
7.1.1.f Corrosion staining			X		
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel	X				2,3,4
7.1.1.j Coating deterioration				X	
Other		X			1

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/26/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable: Yes  No

Engineering Evaluation Required: Yes  No  Evaluation No.: CRS 2000 04138

Comments: The surface texture (comment #1) resulted from original construction and does not reflect degradation of the Containment. Engineering evaluation is needed for the exposed/corroded reinforcing steel rodwelds.

Signature: *R. Namperumal* Date: 6/20/01

AUTHORIZED NUCLEAR INSPECTOR (ANII) REVIEW:

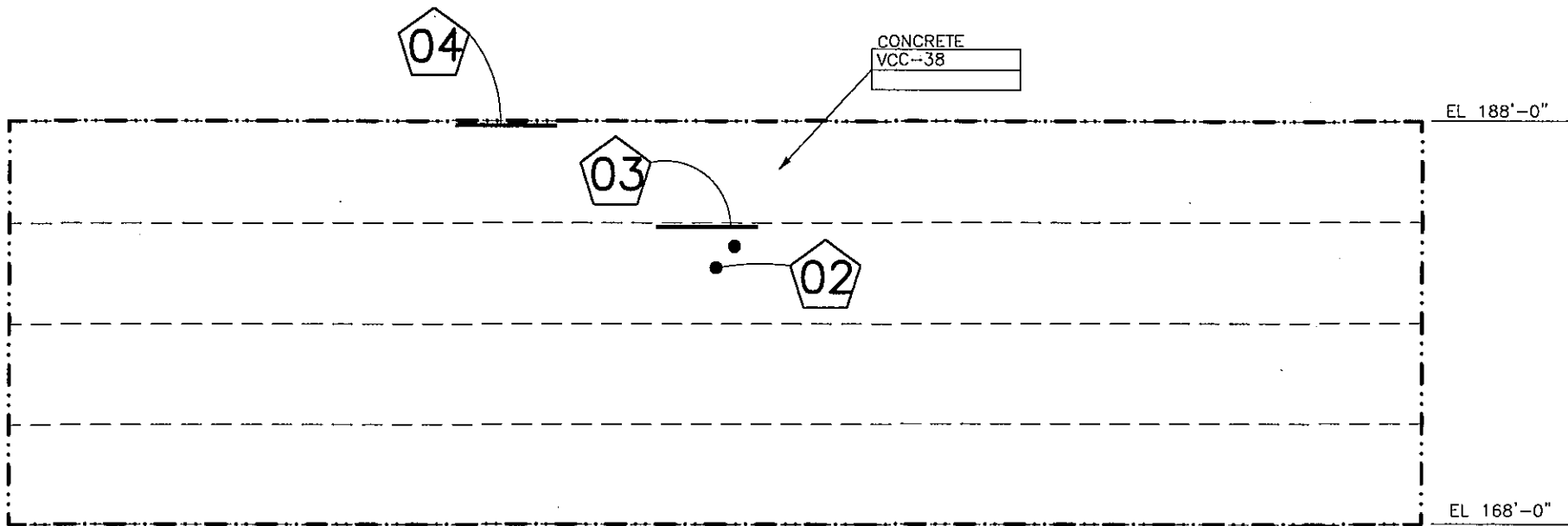
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**FORM VT-3C (cont.)**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-38

No.	Comment	Initials
1	Non-uniformity of surface color and texture observed at various locations in the zone. The condition does not indicate significant material deterioration of the concrete.	RW
2	2 voids exposing 1" corroded steel. See photo 00053103	RW
3	9"x3" concrete spall exposing cadweld sleeve and insufficient concrete cover. See photo 00053102	RW
4	9"x3" concrete spall exposing cadweld sleeve and insufficient concrete cover. See photo 00053101	RW



**CONCRETE INSPECTION ZONE IWL-168-003**  
 (EXTERIOR DEVELOPED VIEW, LOOKING FROM OUTSIDE)



—DENOTES COMMENT NUMBER ON INSPECTION FORM.



IWL-168-003

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IWL-168-003

00053102.jpg





IWL-168-003

00053103.jpg

**FORM VT-3C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-39  
 ZONE NUMBER: IWL-168-004 DRAWING NO.: 320873  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

*Work Order No. NP-99-11274*

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling			X		
7.1.1.f Corrosion staining			X		
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other		X			1

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/25/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No  (VT-1C Examination Required)

Comments: The surface texture resulted from original construction and does not reflect degradation of the containment.

Signature: *R. Namperumal* Date: 6/20/00

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



**FORM VT-3C (cont.)**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-39

No.	Comment	Initials
1	Non-uniformity of surface color and texture observed at various locations in the zone. The condition does not indicate significant material deterioration of the concrete.	RN



**FORM VT-3C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-40  
 ZONE NUMBER: IWL-168-005 DRAWING NO.: 320874  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work order No. NP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling			X		
7.1.1.f Corrosion staining			X		
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other		X			1

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/25/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No  (VT-1C Examination Required)

Comments: The surface texture resulted from original construction and does not reflect degradation of the Containment.

Signature: *R. Namperumal* Date: 6/20/00

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**FORM VT-3C (cont.)**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-40

No.	Comment	Initials
1	Non-uniformity of surface color and texture observed at various locations in the zone. The condition does not indicate significant material deterioration of the concrete.	RW



**FORM VT-3C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-41  
 ZONE NUMBER: IWL-168-006 DRAWING NO.: 320875  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

*Work Order No. NP-99-11274*

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack	X				2
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling	X				3,4
7.1.1.f Corrosion staining			X		
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel	X				3,4
7.1.1.j Coating deterioration				X	
Other		X			1

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/25/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No  (VT-1C Examination Required)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature: *R. Namperumal* Date: 6/30/01

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

FORM VT-1C  
 CONTAINMENT INSERVICE INSPECTION  
 RECORD OF VT-1C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-41  
 ZONE NUMBER: IWL-168-006 DRAWING NO.: 320875  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work Order No. NP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack	X				2
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling	X				3,4
7.1.1.f Corrosion staining			X		
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel	X				3,4
7.1.1.j Coating deterioration				X	
Other		X			1

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/25/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable: Yes  No   
 Engineering Evaluation Required: Yes  No  Evaluation No.: CRS 2000 04138

Comments: The surface texture (comment #1) resulted from original construction and does not reflect degradation of the containment. The leaching (comment #2) is not structurally significant. Engineering evaluation is needed for the exposed reinforcing steel (comments #3/#4).

Signature: *R. Namperumal* Date: 6/30/00

AUTHORIZED NUCLEAR INSPECTOR (ANII) REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

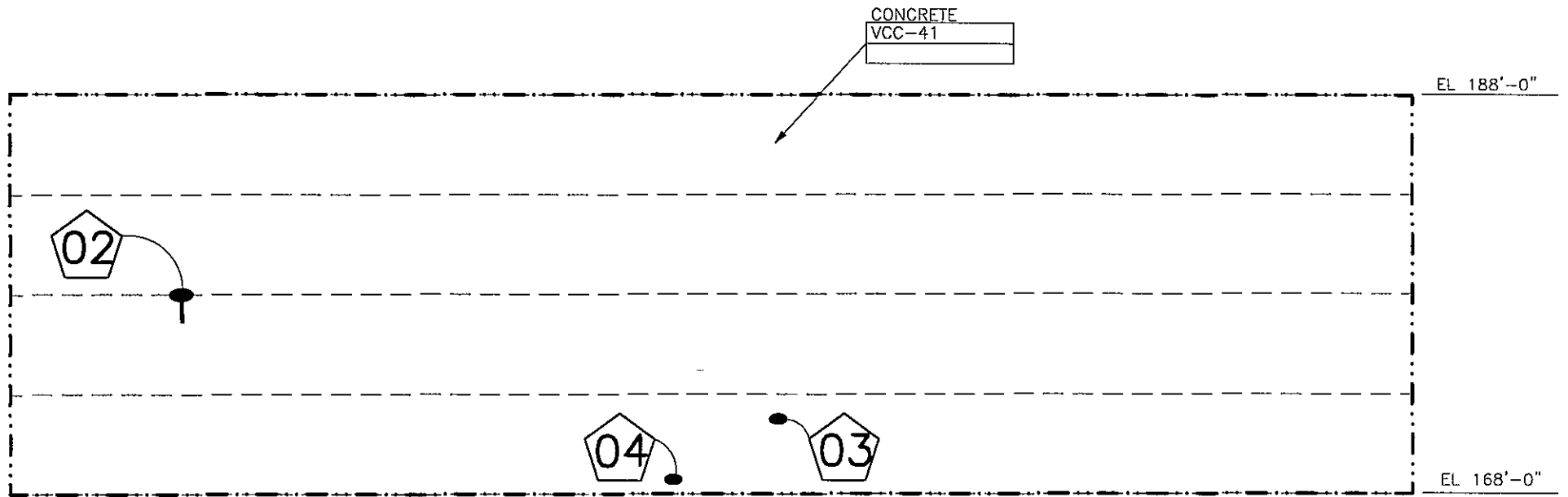


FORM VT-3C (cont.)  
CONTAINMENT INSERVICE INSPECTION  
RECORD OF VT-3C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-41

No.	Comment	Initials
1	Non-uniformity of surface color and texture observed at various locations in the zone. The condition does not indicate significant material deterioration of the concrete.	RN
2	12" long Efflorescence (white deposit) from 3" radius chipped concrete (spall). See photo 00060101	RN
3	10" long cadweld sleeve exposed due to spalling of (1/2") cover concrete. See photos 00052604 and 00052605	RN
4	10" long cadweld sleeve exposed due to spalling of (1/2") cover concrete. See photos 00052604 and 00052605	RN





**CONCRETE INSPECTION ZONE IWL-168-006**  
 (EXTERIOR DEVELOPED VIEW, LOOKING FROM OUTSIDE)



-DENOTES COMMENT NUMBER ON INSPECTION FORM.



IWL-168-006

00052604.jpg



00052605.jpg

IWL-168-006



IWL-168-006

00060101.jpg



**FORM VT-3C**  
 CONTAINMENT INSERVICE INSPECTION  
 RECORD OF VT-3C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-42  
 ZONE NUMBER: IWL-DOME-001 DRAWING NO.: 320876  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

*Work Order No. NP-99-11274*

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling			X		
7.1.1.f Corrosion staining		X			1
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other					

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/26/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No  (VT-1C Examination Required)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature: *R. Namperumal* Date: 6/30/00

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

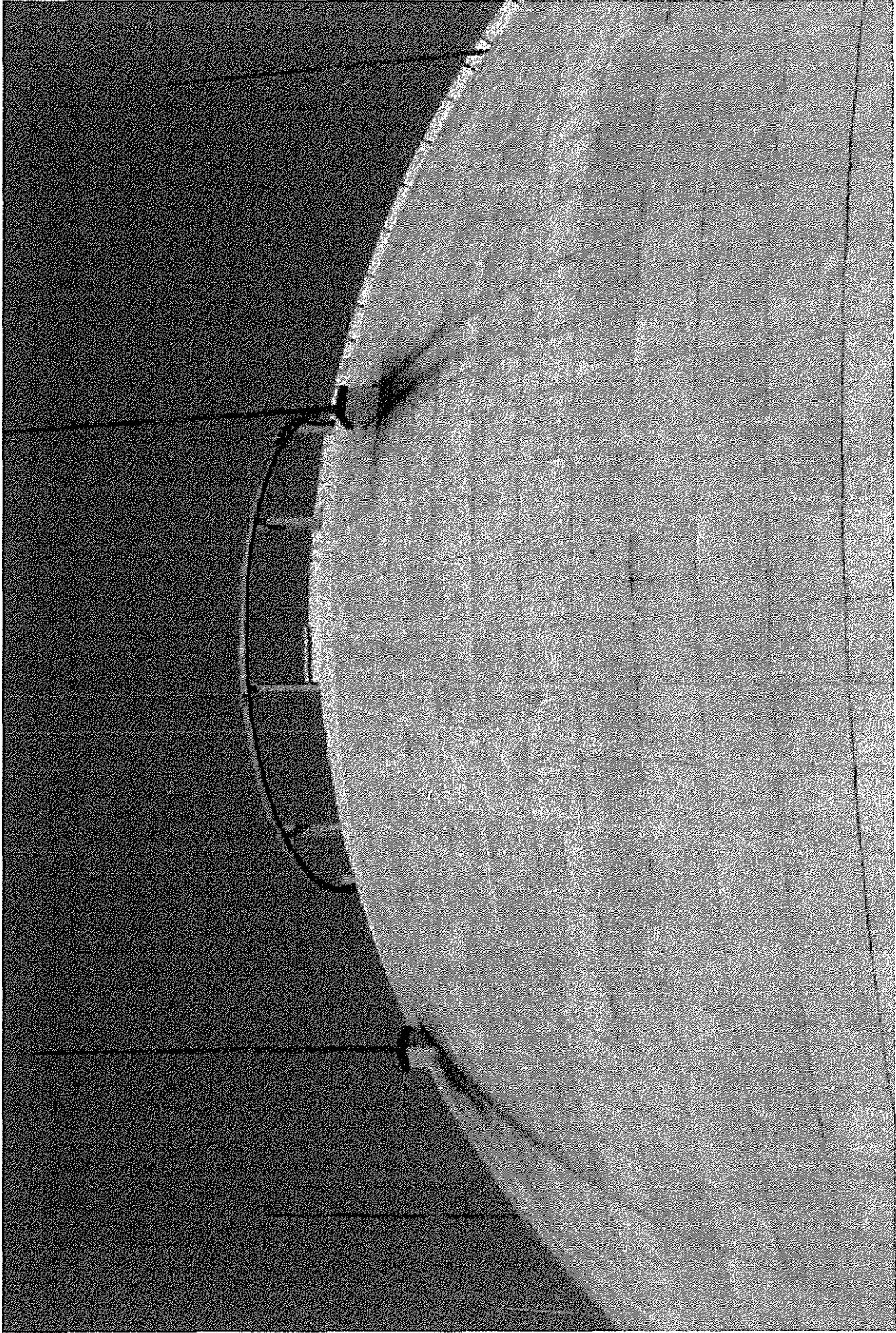
Signature: \_\_\_\_\_ Date: \_\_\_\_\_



**FORM VT-3C (cont.)**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-42

No.	Comment	Initials
1	Large rust stains are evident on the surface of the dome at and below the concrete pier which supports the lightning rod. The rust is obviously dripping down from the lightning rod base support plate. No cracking is evident in the area so rebar corrosion is not suspected. See photo 00053129	RW



00053129.jpg

IWL-DOME-001

**FORM VT-3C**  
 CONTAINMENT INSERVICE INSPECTION  
 RECORD OF VT-3C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-43  
 ZONE NUMBER: IWL-DOME-002 DRAWING NO.: 320877  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work order No. NIP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling			X		
7.1.1.f Corrosion staining		X			1
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other					

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: C. Sward *C. Sward* DATE: 6/1/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No  (VT-1C Examination Required)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature: *[Signature]* Date: 6/30/00

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_





FORM VT-3C (cont.)  
CONTAINMENT INSERVICE INSPECTION  
RECORD OF VT-3C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-43

No.	Comment	Initials
1	Large rust stains are evident on the surface of the dome at and below the concrete pier which supports the lightning rod. The rust is obviously dripping down from the lightning rod base support plate. No cracking is evident in the area so rebar corrosion is not suspected.	CAS



**FORM VT-3C**  
 CONTAINMENT INSERVICE INSPECTION  
 RECORD OF VT-3C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-44  
 ZONE NUMBER: IWL-DOME-003 DRAWING NO.: 320878  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

*Work Order No. NP-99-11274*

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling			X		
7.1.1.f Corrosion staining		X			1
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other					

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/26/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No  (VT-1C Examination Required)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature: *R. Namperumal* Date: 6/2/00

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



**FORM VT-3C (cont.)**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-44

No.	Comment	Initials
1	Large rust stains are evident on the surface of the dome at and below the concrete pier which supports the lightning rod. The rust is obviously dripping down from the lightning rod base support plate. No cracking is evident in the area so rebar corrosion is not suspected.	<i>JN</i>



**FORM VT-3C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-45  
 ZONE NUMBER: IWL-DOME-004 DRAWING NO.: 320879  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

*Work Order No. NP-99-1127A*

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling			X		
7.1.1.f Corrosion staining		X			1
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other					

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/25/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No  (VT-1C Examination Required)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature: *R. Namperumal* Date: 5/25/00

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



**FORM VT-3C (cont.)**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-45

No.	Comment	Initials
1	Large rust stains are evident on the surface of the dome at and below the concrete pier which supports the lightning rod. The rust is obviously dripping down from the lightning rod base support plate. No cracking is evident in the area so rebar corrosion is not suspected.	RN



**FORM VT-3C**  
 CONTAINMENT INSERVICE INSPECTION  
 RECORD OF VT-3C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-46  
 ZONE NUMBER: IWL-DOME-005 DRAWING NO.: 320880  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

*Work order No. NP-99-11274*

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids	X				3
7.1.1.d Scaling			X		
7.1.1.e Spalling			X		
7.1.1.f Corrosion staining		X			1
7.1.1.g Cracks		X			2
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other					

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/25/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable: Yes  No  (VT-1C Examination Required)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature: *BA* Date: 6/30/00

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



**FORM VT-1C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-1C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-46  
 ZONE NUMBER: IWL-DOME-005 DRAWING NO.: 320880  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work order No. NP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids	X				3
7.1.1.d Scaling			X		
7.1.1.e Spalling			X		
7.1.1.f Corrosion staining		X			1
7.1.1.g Cracks		X			2
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other					

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/25/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No   
 Engineering Evaluation Required : Yes  No  Evaluation No.: CRS 2000 04/38

Comments : Engineering evaluation is needed to address the void (comment #3).

Signature: *R. Namperumal* Date: 6/20/00

AUTHORIZED NUCLEAR INSPECTOR (ANII) REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

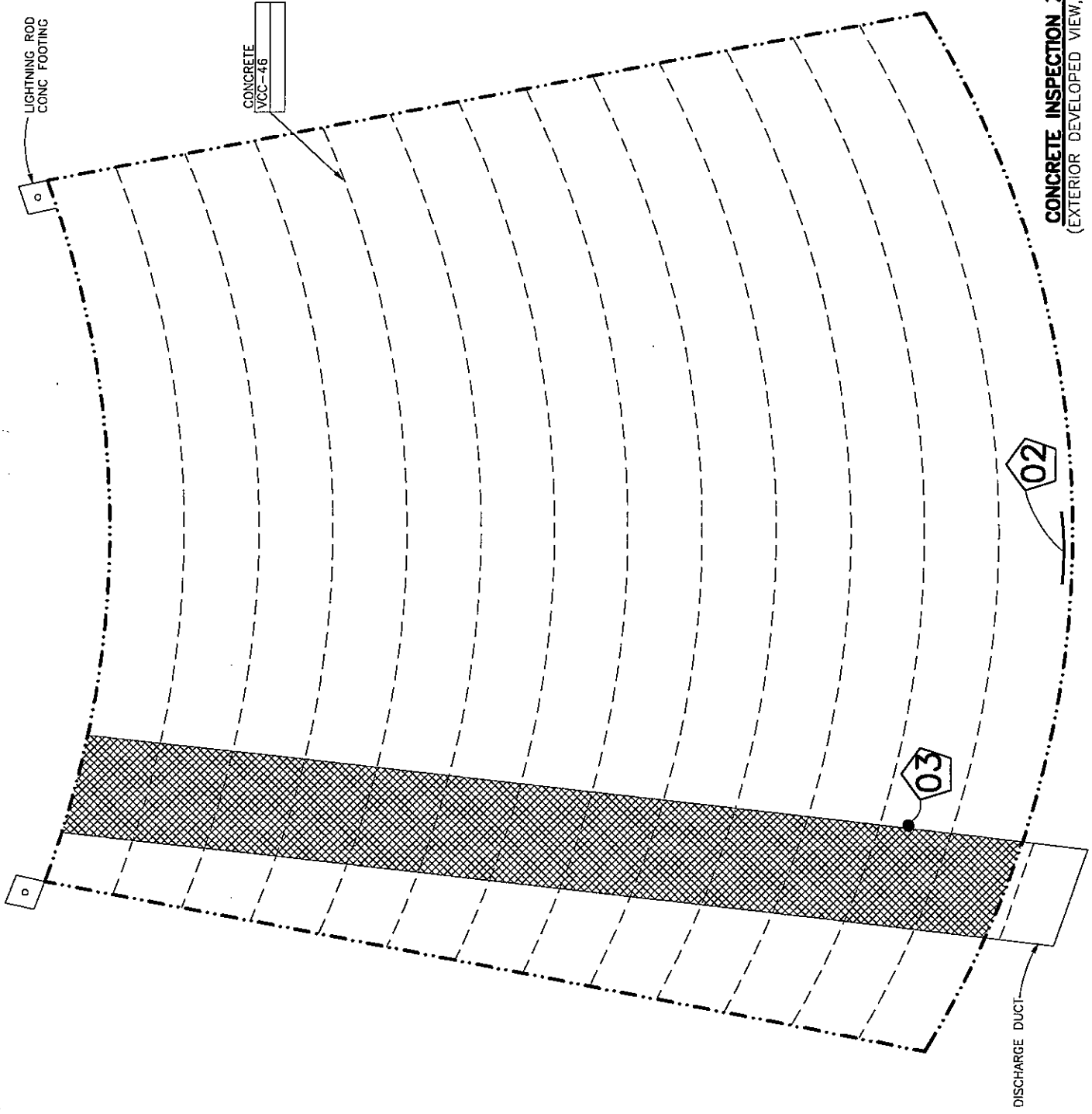


FORM VT-3C (cont.)  
CONTAINMENT INSERVICE INSPECTION  
RECORD OF VT-3C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-46

No.	Comment	Initials
1	Large rust stains are evident on the surface of the dome at and below the concrete pier which supports the lightning rod. The rust is obviously dripping down from the lightning rod base support plate. No cracking is evident in the area so rebar corrosion is not suspected. Corrosion staining is also evident at surface attachments for the discharge duct due to rusting of the attachment plates. See photo 00060104	RW
2	4' long horizontal crack and about 20 to 30 mils in width, 15" above the dome spring line. See photo 00060103	RN
3	3" diameter void (shallow hole) under the duct edge. See photo 00060106	RN





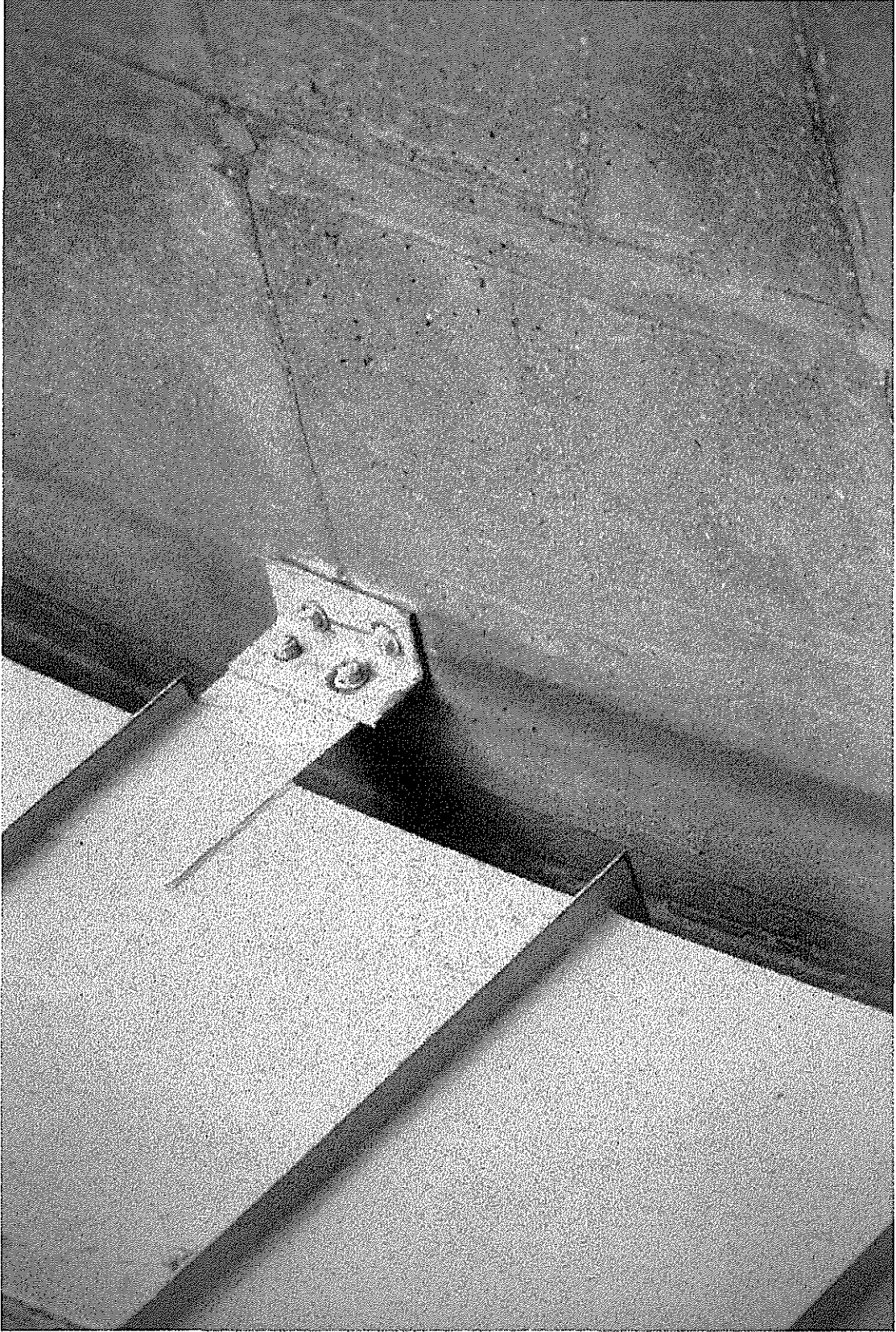
**CONCRETE INSPECTION ZONE IML-DOME-005**  
 (EXTERIOR DEVELOPED VIEW, LOOKING FROM OUTSIDE)

FOR NOTES AND LEGENDS SEE DRAWING 320B35.



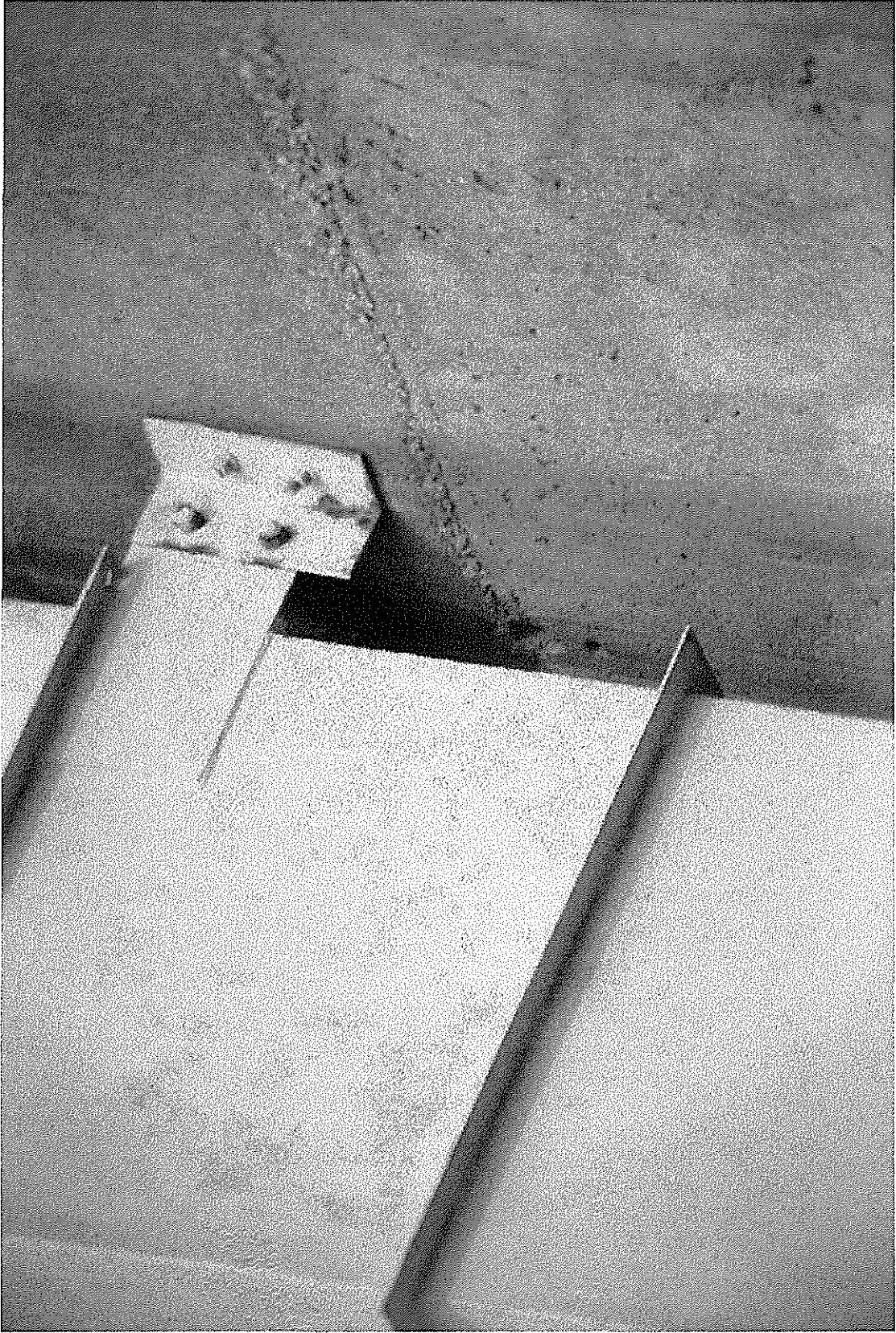
IWL-DOME-005

00060103.jpg



IWL-DOME-005

00060104.jpg



IWL-DOME-005

00060106.jpg



**FORM VT-3C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-47  
 ZONE NUMBER: IWL-DOME-006 DRAWING NO.: 320881  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work Order No. NP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling			X		
7.1.1.f Corrosion staining		X			1
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other					

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: R. Namperumal *R. Namperumal* DATE: 5/25/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No  (VT-1C Examination Required)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature: *R. Namperumal* Date: 6/21/01

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

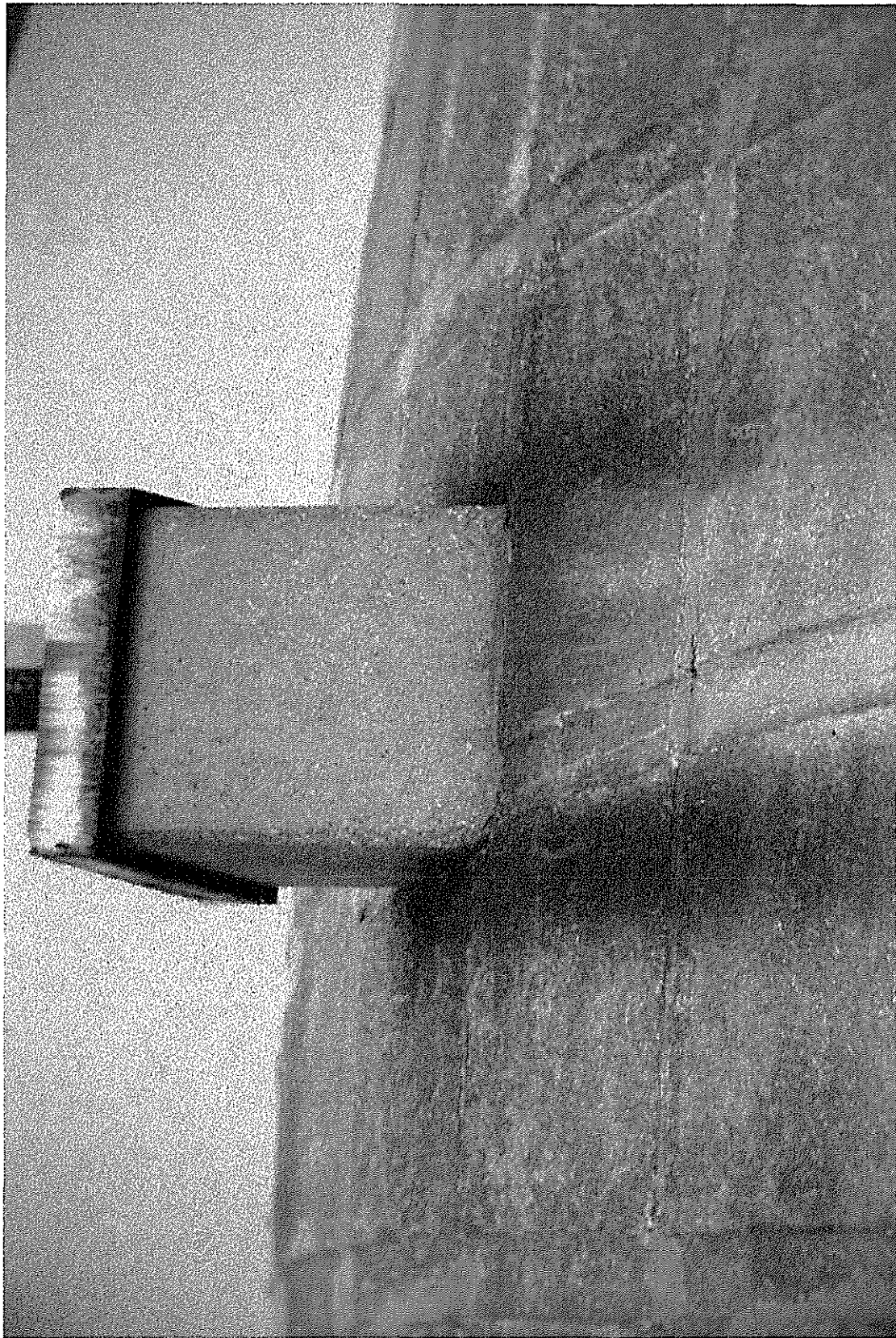
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FORM VT-3C (cont.)  
CONTAINMENT INSERVICE INSPECTION  
RECORD OF VT-3C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-47

No.	Comment	Initials
1	Large rust stains are evident on the surface of the dome at and below the concrete pier which supports the lightning rod. The rust is obviously dripping down from the lightning rod base support plate. No cracking is evident in the area so rebar corrosion is not suspected. See photo 00060105	RN



IWL-DOME-006

00060105.jpg



**FORM VT-3C**  
 CONTAINMENT INSERVICE INSPECTION  
 RECORD OF VT-3C EXAMINATION

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-48  
 ZONE NUMBER: IWL-DOME-007 DRAWING NO.: 320882  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work Order No. NP-99-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling	X				3
7.1.1.f Corrosion staining		X			1,2
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other					

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: C. Sward *C. Sward* DATE: 6/1/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable : Yes  No  (VT-1C Examination Required)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature: *[Signature]* Date: 6/20/01

AUTHORIZED NUCLEAR INSPECTOR REVIEW:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_





**FORM VT-1C**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-1C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-48  
 ZONE NUMBER: IWL-DOME-007 DRAWING NO.: 320882  
 EQUIPMENT USED: Celestron Giant 20x80 Binoculars (Ser. No. 990176)

Work order No. NP-89-11274

Recording Conditions	RI	NRI	NI	NA	Comments
7.1.1.a Leaching or chemical attack			X		
7.1.1.b Abrasion or corrosion			X		
7.1.1.c Popouts or voids			X		
7.1.1.d Scaling			X		
7.1.1.e Spalling	X				3
7.1.1.f Corrosion staining		X			1,2
7.1.1.g Cracks			X		
7.1.1.h Settlement or deflection			X		
7.1.1.i Exposed reinforcing steel			X		
7.1.1.j Coating deterioration				X	
Other					

(Note: Sketches may be attached to clarify inspection areas and locations of indications.)

EXAMINED BY: C. Sward *Chris Sward* DATE: 6/1/00

RESPONSIBLE ENGINEER REVIEW:

Acceptable: Yes  No

Engineering Evaluation Required: Yes  No  Evaluation No.: CRS 2000 04138

Comments: Engineering evaluation is needed to evaluate the significance of the spalled area (comment #3).

Signature: *Chris Sward* Date: 6/31/00

AUTHORIZED NUCLEAR INSPECTOR (ANII) REVIEW:

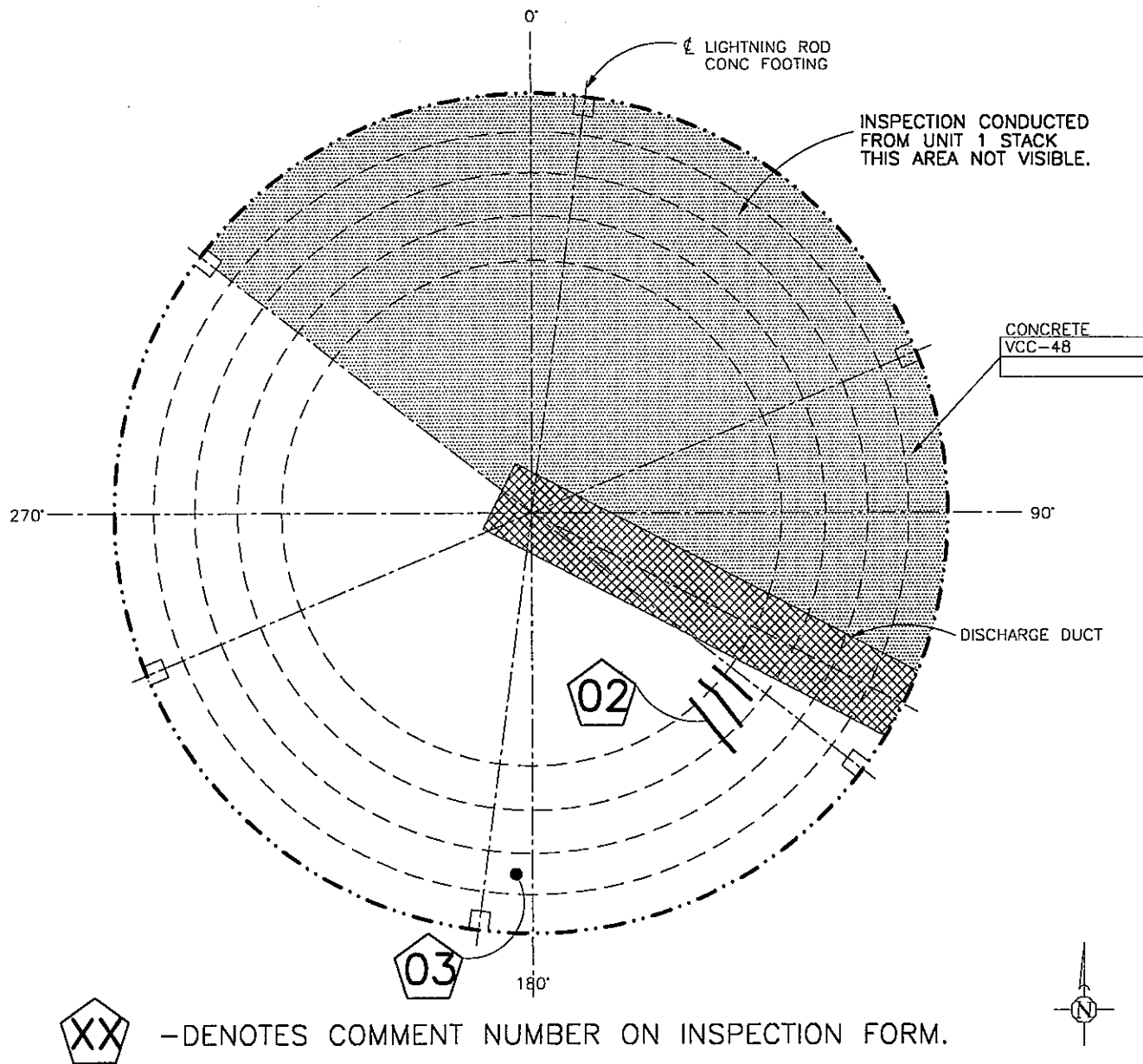
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**FORM VT-3C (cont.)**  
**CONTAINMENT INSERVICE INSPECTION**  
**RECORD OF VT-3C EXAMINATION**

STATION/UNIT: Indian Point 2 COMPONENT NO.: VCC-48

No.	Comment	Initials
1	Large rust stains are evident on the surface of the dome at and below the concrete piers which supports the lightning rods. The rust is obviously dripping down from the lightning rod base support plate. No cracking is evident in the area so rebar corrosion is not suspected. Corrosion staining is also evident at surface attachments for the discharge duct due to rusting of the attachment plates. See photo 00053145	CAS
2	Three (3) rust streaks (6' to 8' long) are present in the upper part of the dome at approximate Azimuth 135. There is no obvious source of these streaks but there is no concrete cracking or other signs to indicate that the corrosion originates from reinforcing steel.	CAS
3	A shallow spall approximately 18" in diameter is present approximately at Azimuth 180 just above and to the east of the lightning rod foundation.	CAS



**CONCRETE INSPECTION ZONE IWL-DOME-007**  
 (EXTERIOR DEVELOPED VIEW, LOOKING FROM OUTSIDE)



IWL-DOME-007

00053145.jpg