

ATTACHMENT E (Page 1 of 2)

QUAD CITIES NUCLEAR POWER STATION  
PROCEDURE MANUAL REVISION RECEIPT FORM

COVERSHEET

NRC--COPY 223  
DOC CONTROL DESK  
WASHINGTON, D.C. 3 HP

Manual Holder

REMOVE		INSERT	
Document	Rev.	Document	Rev.
QEP 120-0	15	QEP 120-0	16
120-T10	2	120-T10	3

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Manual Update Completed: \_\_\_\_\_

\*\* Return to Quad Cities Station Procedure Distribution Clerk \*\*

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TECHNICAL DIRECTOR

<u>QEP 120-0</u> Technical Director	Rev. 16	02-11-94
<u>QEP 120-1</u> Technical Director Implementing Procedure	Rev. 9	03-16-92
<u>QEP 120-2</u> Core Damage Assessment	Rev. 5	12-09-92
<u>QEP 120-S1</u> Technical Director Alert Checklist	Rev. 5	03-16-92
<u>QEP 120-S2</u> Technical Director Site Area Emergency Checklist	Rev. 3	03-16-92
<u>QEP 120-S3</u> Technical Director General Emergency Checklist	Rev. 4	09-11-92
<u>QEP 120-S4</u> Technical Director Downgrade, Termination, and Recovery Checklist	Rev. 2	03-01-91
<u>QEP 120-S5</u> Core Damage Assessment Worksheet	Rev. 3	09-21-92
<u>QEP 120-S6</u> Drywell Radiation Monitor Time Dependent Correction Worksheet	Rev. 4	02-26-92
<u>QEP 120-T1</u> Shift Turnover Briefing	Rev. 3	03-01-91
<u>QEP 120-T2</u> Sequence of Analysis for Estimation of Core Damage	Rev. 1	08-04-88
<u>QEP 120-T3</u> Table of ratios of Isotopes in Core Inventory and Fuel Gap	Rev. 1	08-04-88
<u>QEP 120-T4</u> Table of BWR Plant Parameters	Rev. 1	08-04-88

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<u>QEP 120-T5</u> Relationship Between Fission Product Concentration and Core Damage	Rev. 1	08-04-88
<u>QEP 120-T6</u> Sample Calculation of Fission Product Inventory Correction Factor	Rev. 1	08-04-88
<u>QEP 120-T7</u> Quad Cities Station, Percent Core Damage Versus Containment Radiation Readings (Uncorrected)	Rev. 2	09-27-91
<u>QEP 120-T8</u> Hydrogen Concentration for Mark I/II and III Containments as a Function of Metal-Water Reaction	Rev. 1	08-04-88
<u>QEP 120-T9</u> Time Dependent Drywell Radiation Correction Factors	Rev. 1	08-04-88
<u>QEP 120-T10</u> Key Point History Listing	Rev. 3	02-11-94
<u>QEP 120-T11</u> Core Inventory of Major Fission Products in a Reference Plant Operated at 3651 MW <sub>e</sub> for Three Years	Rev. 1	08-04-88
<u>QEP 120-T12</u> Quad Cities Station Percent Clad Damage Versus Containment Radiation Readings (Uncorrected)	Rev. 1	09-21-92

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## KEY POINT HISTORY LISTING

	System	Range	Point History ID #	
			Unit 1	Unit 2
A. <u>Fuel Cladding Integrity/Reactor Coolant System</u>				
1. Reactor Water Level Indicators.				
a.	Narrow GEMAC A	0 to 60 in	C100	C200
b.	Narrow	0 to 60 in	C101	C201
c.	Yarway A	-60 to 60 in	C102	C202
d.	Yarway B	-60 to 60 in	C103	C203
e.	Refuel Zone	-42 to 358 in	C104	C204
f.	Fuel Zone A	-243 to 57 in	C105	C205
g.	Fuel Zone B	-243 to 57 in	C106	C206
2. Reactor Water Temperature Indicators				
a.	Reactor Metal Point 1	0 to 600°F	C113	C213
b.	Reactor Metal Point 2	0 to 600°F	C114	C214
c.	Reactor Metal Point 3	0 to 600°F	C115	C215
d.	Reactor Metal Point 4	0 to 600°F	C116	C216
e.	Reactor Metal Point 5	0 to 600°F	C117	C217
f.	Reactor Metal Point 6	0 to 600°F	C118	C218
g.	Reactor Metal Point 7	0 to 600°F	C119	C219
h.	Reactor Metal Point 8	0 to 600°F	C120	C220
i.	Rx CLUP Discharge Temp	0 to 600°F	C124	C224
j.	RHR Heat Exchanger A Inlet Temp	0 to 600°F	C183	C283
k.	RHR Heat Exchanger B Inlet Temp	0 to 600°F	C184	C284
l.	Recirc Water Temp A1	420 to 570°F	W126	W226
m.	Recirc Water Temp A2	420 to 570°F	W127	W227
n.	Recirc Water Temp B1	420 to 570°F	W128	W228
o.	Recirc Water Temp B2	420 to 570°F	W129	W229
3. Reactor Water Flow Indicators				
a.	Total Recirc Flow	0 to 43.55 m#/hr	C127	C227
b.	Total Jet Pump Flow	0 to 125 m#/hr	C128	C228
c.	RHR Flow to Reactor Loop A	0 to 22,000 GPM	C179	C279
d.	RHR Flow to Reactor Loop B	0 to 22,000 GPM	C180	C280
e.	Core Spray Loop A Flow	0 to 6000 GPM	C192	C292
f.	Core Spray Loop B Flow	0 to 6000 GPM	C193	C293
g.	HPCI Discharge Flow	0 to 6000 GPM	C195	C295
h.	RCIC Flow	0 to 500 GPM	C197	C297
i.	Reactor Feed Water Flow A	0 to 6 m#/hr	F122	F222
j.	Reactor Feed Water Flow B	0 to 6 m#/hr	F123	F223
k.	Reactor Feed Water Flow C	0 to 6 m#/hr	F124	F224

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System		Range		
<b>B. <u>Reactor Coolant System Integrity</u></b>				
1. Reactor Pressure				
a.	Intermediate	0 to 1200 psig	C109	C209
b.	Intermediate Range B	0 to 1200 psig	C110	C210
c.	Wide Range	0 to 1500 psig	C111	C211
d.	Narrow Range	950 to 1050 psig	C112	C212
2. Torus Water Level				
a.	Narrow Range	-25 to 25 in	C171	C271
b.	Wide Range A	0 to 30 ft. Wtr	C172	C272
c.	Wide Range B	27.45 to 384.75 in	C173	C273
3. Torus Water Temperature				
a.	Temperature A	0 to 400°F	C169	C269
b.	Temperature B	0 to 400°F	C170	C270
4. Torus Radiation Monitor				
a.	Monitor A	1 to 10E6 R/hr	R124	R224
b.	Monitor B	1 to 10E6 R/hr	R125	R225
5. Relief and Safety Valve Positions (203)				
a.	Valve 4G	closed/open	G511	G611
b.	Valve 4F	closed/open	G512	G612
c.	Valve 4E	closed/open	G513	G613
d.	Valve 4D	closed/open	G514	G614
e.	Valve 4C	closed/open	G515	G615
f.	Valve 4B	closed/open	G516	G616
g.	Valve 4A	closed/open	G517	G617

**C. Containment Integrity Indicators**

1. Containment Pressure				
a.	Narrow Range	-2.5 to 5 psig	C161	C261
b.	Intermediate Range	0 to 75 psig	C162	C262
c.	Wide Range	-5 to 250 psig	C163	C263
d.	Containment Isolation GP3	Trip/Reset	C593	C693
e.	Containment Isolation GP2	Trip/Reset	C596	C696
f.	Containment High Pressure A	Reset/Trip	W512	W612
g.	Containment High Pressure B	Reset/Trip	W513	W613
h.	Containment High Pressure C	Reset/Trip	W514	W614

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System		Range	Point History ID #	
			Unit 1	Unit 2
i.	Containment High Pressure D	Reset/Trip	W515	W615
2.	Hydrogen Concentrations			
a.	Drywell H <sub>2</sub> Conc.	0 to 20%	C167	C267
b.	Torus H <sub>2</sub> Conc.	0 to 20%	C168	C268
3.	Drywell Radiation Monitor (Uncorrected. See QEP 120-S6 for correction factors.)			
a.	Monitor A	1 to 1E8 R/hr	R123	R223
b.	Monitor B	1 to 1E8 R/hr	R122	R222
4.	Release Point Monitoring			
a.	Rx Bldg Vent Stack Noble Gas			
(1)	Low Range (SPING)	2E-4 to 17.9 PCi/cc	R127	R127
(2)	Interm. Rg(SPING)	1.4E-2 to 1.4E2 cpm	R128	R128
(3)	High Range(SA-9)	10 to 1E5 cpm	R129	R129
(4)	Stack Flow	0 to 400 KCFM	R135	R135
(5)	DW Vent Vlv (AO-1601-23)	open/close	F543	F643
b.	Main Chimney			
(1)	Low Range (SPING)	2E-4 to 17.9 $\mu$ Ci/cc	R130	R130
(2)	Interm Range (SPING)	1.4E-2 to 1.4E2 $\mu$ Ci/cc	R131	R131
(3)	Wide Range (SA-9)	10 to 1E5 $\mu$ Ci/cc	R132	R132
(4)	Activity Monitor (GE)	0.1 to 10E6 cps	R133	R233
(5)	Stack Flow	0 to 440 KCFM	R134	R134
(6)	Vent to SGTS (AO-1601-63)	open/close	F533	F633
(7)	SGTS Train A Flow(R236) B Flow (R136)	0 to 5000 CFM	R136	R236
(8)	Charcoal Bed Vault Radiation	1 to 1E7 R/hr	R110	R210
c.	Radwaste Effluent Radiation	0.1 to 1E7 cps	R120	R120
d.	Service Water Effluent Radiation	0.1 to 1000 cps	R119	R219

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