AN INTERNATIONAL CODE

2019 ASME Boiler & Pressure Vessel Code

CODE CASES: NUCLEAR COMPONENTS

Supplement 1

The new and revised Cases that appear in this Supplement were approved by the Board on Pressure Technology Codes and Standards between January 23 and May 30, 2019.



Two Park Avenue • New York, NY • 10016 USA



NUMERIC INDEX

Case	Approval Date	Errata	Impending Annulment Date	Annulled Date/ Supersedes
N-4-13	2-12-2008			
N-60-6	12-6-2011			
N-62-7	5-11-1994	•••	•••	•••
N-71-20	7-17-2016		***	***
N-131-1	12-11-1981			
N-133-3	7-18-1985			
N-154-1	12-5-1985			
N-155-3	2-11-2016			
N-205	7-13-1981			
N-213-1	2-11-2016			
	3-6-1978(ACI)			
N-249-17	4-10-2018	***	***	N-249-16
N-258-2	7-30-1986	***	***	***
	3-17-1978(ACI)			
N-284-4	10-8-2012			***
N-290-2	12-17-2018			N-290-1
N-312	5-25-1983			
	9-26-1983(ACI)			
N-315	2-14-1983			
N-319-3	1-17-2000			
N-351	7-16-1982	•••	•••	
N-369	2-14-1983	•••	•••	
N-373-3	10-8-2004			
N-405-1	7-24-1989			
N-432-1	3-28-2001			
N-452	3-8-1989			
N-453-3	12-12-1995			
N-454-1	4-30-1992			
N-455-1	4-30-1992			
N-460	7-27-1988			
N-469-1	6-14-2000	***	***	
N-483-3	5-7-1999			8-4-2017
N-494-4	1-12-2005			
N-498-4	2-15-1999			
N-500-4	10-14-2011			
N-504-4	7-14-2006			
N-505 N-508-4	7-27-1992 1-26-2009			
N-508-4 N-511		***	***	***
N-511 N-513-5	2-12-1993 4-18-2018			
N-515-5 N-516-5		2019	***	
N-516-5 N-517-1	4-25-2016 7-30-1998		•••	
			•••	
N-519-1 N-520-6	R1-16-2019 12-11-2012		•••	
N-525	12-9-1993			
N-526	8-9-1996			
N-528-1	5-7-1999			
N-530	12-12-1994			
N-532-5	1-4-2011			
N-537	3-14-1995			
N-539-1	8-16-2016	***		
N-548	3-19-1996	***		
N-552-1	6-22-2012			
N-557-1	12-31-1996			
N-560-2	3-28-2000			
N-561-3	10-16-2018			 N-561-2
N-562-2	3-22-2007			
N-564-2	1-17-2000			

xi NC – SUPP. 1

			Impending Annulment	Annulled Date/
Case	Approval Date	Errata	Date	Supersedes
N-565	12-31-1996			
N-566-2	3-28-2001			
N-569-1	5-7-1999			
N-570-2	9-9-2008			***
N-575	8-14-1997			
N-576-2	3-16-2012			
N-577-1 N-578-1	3-28-2000 3-28-2000			
N-576-1 N-579	8-14-1997			
N-580-2	1-4-2008			
N-586-1	5-4-2004			
N-589-1	7-23-2002			
N-593-2	11-8-2011			•••
N-594-1	10-14-2011			
N-597-3	5-7-2014			
N-600	9-18-2001			
N-606-2	6-21-2013			•••
N-607	2-26-1999			***
N-609-1	9-17-2010			
N-610	7-30-1998	•••		•••
N-613-2	12-20-2010			
N-618	6-17-2003			
N-619 N-620	2-15-1999 2-26-1999			***
N-621-1	10-8-2004			
N-624	5-7-1999			
N-625-1	3-28-2001			
N-631	9-24-1999			•••
N-632	12-3-1999			
N-633	6-14-2002			
	6-14-2002(ACI)			
N-635-1	2-14-2003			
N-636	9-24-1999			
N-637-1	9-20-2010			
N-638-10	5-6-2019			N-638-9
N-639	9-24-1999			
N-641 N-642	1-17-2000 3-28-2000			•••
N-643-2	5-4-2004	 2019-Supp. 1		
N-644-1	2-14-2003			
N-647	12-8-2000			
N-648-2	9-4-2014			
N-649	3-28-2001			
N-650	3-28-2001			***
N-651	8-14-2001			
N-652-2	9-3-2010			
N-653-2	6-23-2015			
N-654	4-17-2002			
N-655-2	9-27-2010			***
N-658	4-4-2002			
N-659-3 N-660	10-12-2017 7-23-2002			•••
N-661-3	4-25-2016			
N-662-1	6-25-2011			
N-663	9-17-2002			
N-664	8-20-2002			
N-665	2-28-2003			
N-666-1	3-13-2012			
N-673	8-7-2003			
N-683	2-14-2003			
N-685	5-9-2003			
N-686-1	1-10-2007			
N-691	11-18-2003			

NC – SUPP. 1 xii

Case	Approval Date	Errata	Impending Annulment Date	Annulled Date/ Supersedes
N-692-1	5-9-2016			
N-694-2	1-16-2013			•••
N-695-1	12-31-2014			
N-696-1	5-7-2014	***		
N-697	11-18-2003			
N-698	11-18-2003	•••		
N-699	1-5-2006			
N-700	11-18-2003			
N-702-1	4-18-2019	•••		N-702
N-703	5-4-2004		•••	
N-705-1	6-30-2017		•••	
N-706-1	1-10-2007			
N-707-1	2-18-2016			
N-708	9-21-2007			
N-710	5-5-2004			***
N-711-1	11-7-2016			
N-712	5-12-2004			
N-713	11-10-2008			
N-716-2	11-7-2016			
N-721-1	10-20-2016		***	
N-722-2	9-8-2011			
N-725	1-12-2005		***	
N-727	2-24-2006			
N-729-8	3-27-2019			N-729-7
N-730-1	7-16-2012			•••
N-731	2-22-2005			
N-733	7-1-2005			
N-735	10-12-2006			
N-736 N-738	1-5-2006 7-1-2005		***	***
N-739-1	1-21-2007	•••		
N-740-2	11-10-2008	***		
N-741	10-11-2005			
N-746	1-5-2006			
N-747	1-13-2006			
N-748	9-9-2008	•••		
N-749	3-16-2012		•••	***
N-751	8-3-2006			
N-753	7-14-2006			
N-754-1	2-28-2013			
N-755-4	5-11-2017			
N-756	1-21-2007			
N-757-1	9-21-2007			
N-759-2	1-4-2008			
N-760-2	10-10-2008	•••		
N-761	9-20-2010			
N-762-1	10-21-2013			
N-763	8-28-2008			
V 545	3-19-2010(ACI)			•••
N-765	1-26-2009	•••		
N-766-3	7-17-2017			
N-767	1-4-2008 10-16-2018			
N-768 N-769-2	7-16-2018 7-16-2012			
N-770-6	7-16-2012 4-18-2019	 2019	•••	 N-770-5
N-771	9-8-2011			
N-771 N-773	1-26-2009	•••		
N-774	9-3-2008			
N-774 N-775	6-24-2010			
N-776	4-9-2010	***		
N-777	10-10-2008	•••		
N-778	12-25-2009			
N-779	1-26-2009			

xiii NC – SUPP. 1

Case	Approval Date	Errata	Impending Annulment Date	Annulled Date/ Supersedes
N-780	4-9-2010			
N-782	1-30-2009			
N-784			•••	
	4-9-2010		•••	
N-785	10-12-2009	•••		•••
N-786-3	4-27-2017			•••
N-788-1	3-6-2017			
N-789-3	4-27-2017			
N-791	9-20-2010			
	10-23-2010(ACI)			
N-792-1	8-12-2012		•••	
N-793	9-20-2010		•••	
	10-23-2010(ACI)			
N-794	9-20-2010			
1,731	10-23-2010(ACI)			
N-795	9-17-2010			***
				•••
N-796	10-18-2010	•••		•••
	10-23-2010(ACI)			•••
N-798	12-20-2010			
N-799	12-20-2010			
N-800	12-20-2010			
N-801-3	5-11-2017			
N-803	2-25-2011			
N-804	10-14-2011		•••	
N-805	2-25-2011		•••	•••
N-806-1	12-15-2015			
N-807	4-20-2011	***	***	***
11-007			•••	
V 000	9-6-2011(ACI)	•••		•••
N-809	6-23-2015			
N-811	8-5-2011	•••		•••
	9-6-2011(ACI)			
N-812-1	1-10-2013			
N-813	10-24-2011			
N-815	12-6-2011			
N-816	12-6-2011	***		
N-817	12-6-2011	•••		
N-818-1	8-20-2014			
N-819	12-6-2011		***	***
		***		•••
N-820	12-29-2011			•••
	1-25-2012(ACI)			•••
N-822-4	8-2-2016	•••		
N-823-1	1-23-2014			
N-824	10-16-2012			
N-825	10-2-2013			
N-826	7-16-2012			
N-829	12-28-2012		•••	
N-830	9-4-2014			
N-831-1	7-25-2018	 2019-Supp. 1		
N-833	1-2-2013			
14-033			•••	
N 024	1-23-2013(ACI)	•••		•••
N-834	10-22-2013	•••	•••	•••
N-836	10-22-2013	•••		
N-837	10-22-2013			
N-838	8-3-2015			
N-839	9-4-2014			
N-840	1-23-2014			
N-841	1-6-2014			
N-842	1-28-2014			
N-843	1-23-2014			
N-844			***	***
	2-9-2014		***	***
N-845-1	4-25-2016	•••		
N-846	7-25-2014	•••		
N-847	10-24-2016			
N-848-1	11-7-2016			

NC – SUPP. 1 xiv

Case	Approval Date	Errata	Impending Annulment Date	Annulled Date/ Supersedes
N-849	9-4-2014			
N-850	10-20-2014			
	8-1-2014(ACI)			
N-851	11-5-2014			
N-852	2-9-2015			
N-853	6-27-2016		···	
N-854	4-15-2015			
N-855	7-8-2015			
N-856	7-16-2015			
N-858	6-28-2017			
N-859	1-20-2016			
N-861	2-11-2016			
N-862	2-11-2016			
N-863-1	2-16-2017			
N-864	7-28-2017			
N-865	6-12-2017		···	
N-866	11-14-2016			
N-867		***		
	11-7-2016			
N-868	10-20-2016			
N-869	7-5-2018			
N-870-1	11-2-2017			
N-871	12-17-2018		•••	
N-872	10-20-2016		•••	
N-873	5-10-2017		•••	
N-874	8-1-2018			
N-875	5-11-2017			
N-876	6-12-2017			
N-877	6-30-2017			
N-878	4-18-2017			
N-879	5-10-2017			
N-880	7-25-2017			
N-881	12-4-2017			
N-882	4-18-2018			
N-883	1-29-2018		•••	
N-884	10-23-2018			
N-885	12-4-2018			
N-886	5-2-2018			
N-887	5-2-2018			
N-889	7-12-2018			
N-890	10-16-2018			
N-891	12-17-2018			
N-892	1-9-2019			

xv NC – SUPP. 1

SUBJECT INDEX

		Subject	Case
Subject	Case	Section III — Division 1	
Section III — Division 1		Rules for Construction of Nuclear Facility Components (Cont'd)
Rules for Construction of Nuclear Facility Componer	ıts	ASTM A988/A988M-11 UNS S31603, Subsection NB, Class 1	
Additional Materials for Subsection NF, Class 1, 2, 3, and MC		Components	N-834
Supports Fabricated by Welding	N-71	Boron Containing Powder Metallurgy Aluminum Alloy for	
Additional Materials for Subsection NF, Class 1, 2, 3, and MC		Storage and Transportation of Spent Nuclear Fuel	N-673
Supports Fabricated Without Welding	N-249	Calibration of C_v Impact Test Machines	N-777
Air Cooling of SA-182 Grades F304, F304L, F316, F316L Forgings		Certificate Holder Ability to Supply Polyethylene Material	N-846
Instead of Liquid Quenching After Solution Heat Treatment,		Construction of ASME B16.9 Wrought Buttwelding Fittings and	
Classes 1, 2, and 3	N-548	ASME B16.11 Forged Fittings Made From SB-366 UNS N04400	
Alternate Procedure for Evaluation of Stresses in Butt Welding		Material for Section III, Class 3 Construction	N-859
Elbows in Class 1 Piping	N-319	Construction of Items Prior to the Establishment of a Section III,	
Alternative Materials for Construction of Section III, Class 2	N. O.C.C	Division 1 Owner	N-883
Vessels		Design Stress Intensities and Yield Strength Values for UNS	
Alternative Methods of Nozzle Attachment for Class 1 Vessels .	N-565	N06690 With a Minimum Specified Yield Strength of 30 ksi,	
Alternative Preheat Temperature for Austenitic Welds in P-No. 1	N. 004	Class 1 Components	N-525
Material Without PWHT	N-804	Design Stress Intensities and Yield Strength Values for UNS	
Alternative PWHT Time at Temperature for P-No. 5A or P-No. 5B Group 1 Material, Classes 1, 2, and 3	N 272	N06690 With a Minimum Specified Yield Strength of 35 ksi	
Alternative Reference Stress Intensity Factor (K_{IR}) Curve for	N-3/3	(240 MPa), Class 1 Components	N-698
Class Components	N 610	Design Stress Values for UNS N06690 With a Minimum Specified	
Alternative Requirements to Appendix XXVI, XXVI-2400,	N-010	Yield Strength of 35 ksi (240 MPa), Classes 2 and 3	
XXVI-4130, and XXVI-4131 for Inspection and Repair of		Components	N-725
Indentations for Polyethylene Pipe and Piping Components .	N_991	Design Temperatures for Atmospheric and 0–15 psi Storage	N 544
Alternative Rules for Acceptability for Class 1 Valves, NPS 1	N-071	Tanks	N-511
(DN 25) and Smaller With Nonwelded End Connections Other		Dissimilar Welding Using Continuous Drive Friction Welding for	
Than Flanges	N-756	Reactor Vessel CRDM/CEDM Nozzle to Flange/Adapter Welds, Class 1	N 727
Alternative Rules for Acceptability for Class 2 and 3 Valves,	11 750		IN-/2/
NPS 1 (DN 25) and Smaller With Welded and Nonwelded End		Exempting SA-508 Grade 1A From PWHT Based on	N 001
Connections Other Than Flanges	N-757	Measurement of Residual Stress in Class 1 Applications	N-881
Alternative Rules for Determining Allowable External Pressure	., , , ,	Exemptions to Mandatory PWHT of SA-738 Grade B for Class MC	N 0/1
and Compressive Stresses for Cylinders, Cones, Spheres, and		Applications Expansion Joints in Class 1, Liquid Metal Piping	
Formed Heads, Class 1, 2, and 3	N-759	Fatigue Design Curves for Light Water Reactor (LWR)	14-290
Alternative Rules for Linear Piping and Linear Standard		Environments	N 761
Supports for Classes 1, 2, 3, and MC	N-570	Fatigue Evaluations Including Environmental Effects	
Alternative Rules for Linear Piping Supports		Fiberglass Reinforced Thermosetting Resin Pipe	
Alternative Rules for Progressive Liquid Penetrant Examination		Guidance on Implementation of NS Certificate of Accreditation.	
of Groove Welds in P-No. 8 Materials $\frac{3}{16}$ in. (5 mm) Thick and		Heat Exchanger Tube Mechanical Plugging, Class 1	
Less Made by Autogenous Machine or Automatic Welding	N-642	Internal and External Valve Items, Classes 1, 2, and 3	
Alternative Rules for Renewal of Active or Expired Certificates		Martensitic Stainless Steel for Classes 1, 2, and 3 Components .	
for Plants Not in Active Construction	N-520	Material for Core Support Structures	
Alternative Rules for Simplified Elastic-Plastic Analysis Class 1.	N-779	Material for Internal Pressure Retaining Items for Pressure	
Alternative Rules for Standard Supports for Classes 1, 2, 3, and		Relief Valves, Classes 1, 2, and 3	N-131
MC	N-500	Metal Containment Shell Buckling Design Methods, Class MC, TC,	
Alternative Rules for the Examination of Butt Welds Used as		and SC Construction	
Closure Welds for Electrical Penetration Assemblies in		NDE of Full Penetration Butt Welds in Class 2 Supports	
Containment Structures	N-505	Ni-Cr-Mo Alloy (UNS N06022) Welded Construction to 800°F	
Alternative Rules to the Provisions of NCA-3800, Requirements		Ni-Cr-Mo Alloy (UNS N06059) Welded Construction to 800°F	
for Purchase of Material	N-483	Nickel-Chromium-Molybdenum-Copper Stainless Steel (UNS	
Alternative to the Registered Professional Engineer		N08925 and N08926) for Class 2 and 3 Construction	N-453
Requirements		Nickel-Chromium-Molybdenum-Copper Stainless Steels (UNS	
Alternatives to the Requirements of NB-4250(c) \dots	N-844	N08925 and N08926) Forged Flanges and Fittings for Class 2	
Alternatives to the Requirements of NB-4424.2(a), Figure NB-		and 3 Construction	N-455
4250-2, and Figure NB-4250-3		Nickel-Chromium-Molybdenum-Copper Stainless Steels (UNS	
Application of the ASME Certification Mark		N08925 and N08926) Wrought Fittings for Class 2 and 3	
Application of the ASME NPT Stamp	N-852	Construction	N 454

xvii NC – SUPP. 1

Section III — Division 1		Section III — Division 1	
Rules for Construction of Nuclear Facility Components (Postweld Heat Treatment (PWHT) of Valve Seal Welds for P4 and	Cont'd)	Rules for Construction of Nuclear Facility Components (Use of Die Forgings, SB-247, UNS A96061, Class T6, With	Cont'd)
P5A Materials	N-863	Thickness ≤4.000 in. Material, Class 2 Construction (1992)	
Procedure to Determine Strain Rate for Use With the	14-005	Edition or Later)	N_Q17
Environmental Fatigue Design Curve Method and the		Use of Ductile Iron SA-395, Class 3	
Environmental Fatigue Correction Factor, F_{en} , Method as Part		Use of Fracture Toughness Test Data to Establish Reference	N-203
•		e e	
of an Environmental Fatigue Evaluation for Components	N 004	Temperature for Pressure Retaining Materials Other Than	N 621
Analyzed per the NB-3200 Rules		Bolting for Class 1 Vessels	N-031
Projection Resistance Welding of Valve Seats, Classes 1, 2, and 3	N-154	Use of JIS G4303, Grades SUS304, SUS304L, SUS316, and	
Provisions for Establishing Allowable Axial Compressive		SUS316L	N-/08
Membrane Stresses in the Cylindrical Walls of 0-15 psi Storage		Use of Micro-Alloyed Carbon Steel Bar in Patented Mechanical	
Tanks, Classes 2 and 3		Joints and Fittings, Classes 1, 2, and 3	N-879
Repair of Bellows	N-315	Use of NDE and Fracture Mechanics for Acceptance of Full	
Repairs to P-4 and P-5A Castings Without Postweld Heat		Penetration Butt Welds in Lieu of Weld Repair, Class 1 and 2	N-818
Treatment Class 1, 2, and 3 Construction		Use of Nonstandard Nuts, Class 1, 2, and 3, MC, CS Components	
Resistance Welding of Bellows		and Supports Construction	
Rules for Class 1 Type M Pumps		Use of Polyethylene (PE) Class 3 Plastic Pipe	
Rules for Repair of N-Stamped Class 1, 2, and 3 Components	N-801	Use of Polyethylene Pipe for Class 3	N-886
Rules for the Elimination of External Surface Defects on Class 1,		Use of SA-358/SA-358M Grades Fabricated as Class 3 or Class 4	
2, and 3 Piping, Pumps, or Valves After Component Stamping		Welded Pipe, Class CS Core Support Construction	N-815
and Prior to Completion of the N-3 Data Report	N-870	Use of SA-479/SA-479M, UNS S41500 for Class 1, Welded	
SA-494 Grade CW-12MW (UNS N30002) Nickel Alloy Castings		Construction	N-785
for Construction of NPS $2\frac{1}{2}$ and Smaller Flanged Valves for		Use of SA-537, Class 2 Plate Material in Non-pressure Boundary	
Class 3 Construction	N-856	Application Service 700°F to 850°F, Class 1 or CS	N-650
SB-148 C95800 Valves for Class 3 Construction	N-855	Use of SA-738, Grade B, for Metal Containment Vessels, Class MC	N-655
Socket Welds	N-405	Use of SB-148 Alloys 952 and 954, Class 3	N-133
Special Type 403 Modified Forgings or Bars, Class 1 and CS	N-4	Use of Standard Welding Procedures	N-692
Specialized Subcontracted Welding Process (Electron Beam		Use of Strain Hardened Austenitic Material at Lower Design	
Welding)	N-452	Stress Values for Class 1 Valves	N-703
UNS J93380, Alloy CD3MWCuN, Classes 2 and 3 Construction	N-564	Use of Subsize Charpy V-Notch Specimens	
UNS N08367 in Class 2 and 3 Valves	N-539	Use of Temper Bead Weld Repair Rules Adopted in 2010 Edition	
Use of 13Cr-4Ni (Alloy UNS S41500) Grade F6NM Forgings		and Earlier Editions	N-816
Weighing in Excess of 10,000 lb (4 540 kg) and Otherwise		Use of Titanium Grade 2 (UNS R50400) Tube and Bar, and Grade	
Conforming to the Requirements of SA-336/SA-336M for Class		1 (UNS R50250) Plate and Sheet for Class 1 Construction	N-699
1, 2 and 3 Construction		Use of Ultrasonic Examination in Lieu of Radiography for Weld	
Use of 18Cr-13Ni-3Mo (Alloy UNS S31703), 19Cr-15Ni-4Mo		Examination	N-659
(Alloy UNS S31725), and 18.5Cr-15.5Ni-4.5Mo-N (Alloy UNS		Use of UNS S32050 Welded and Seamless Pipe and Tubing,	
S31726) Forgings, Seamless Tubing, Plate, Welded Tubing,		Forgings, and Plates Conforming to SA-249/SA-249M, SA-479/	
Welded and Seamless Pipe, Welded Pipe With Addition of		SA-479M, and SA-240/SA-240M, and Grade CK35MN Castings	
Filler Metal and Fittings, Classes 2 and 3	N-636	Conforming to ASTM A743-03 for Construction of Class 1, 2,	
Use of 21Cr-6Ni-9Mn (Alloy UNS S21904) Grade FXM-11		and 3 Components	N-736
(Conforming to SA-182/SA-182M and SA-336/SA-336M),		Use of Zirconium Alloy UNS R60702, Bars, Forgings, Plate,	
Grade TPXM-11 (Conforming to SA-312/SA-312M) and Type		Seamless and Welded Fittings, Seamless and Welded Tubing,	
XM-11 (Conforming to SA-666) Material, for Class 1		and Seamless and Welded Pipe, for Class 3 Construction	N-710
Construction	N-767	Weld Procedure Qualification for Procedures Exempt From	., , 10
Use of 22Cr-5Ni-3Mo-N (Alloy UNS S31803) Forgings, Plate, Bar,	11 707	PWHT in Classes 1, 2, and 3 Construction	N-644
Welded and Seamless Pipe, and/or Tube, Fittings, and Fusion		Welding of Globe Valve Disks to Valve Stem Retainers, Classes 1,	11 011
Welded Pipe With Addition of Filler Metal, Classes 1, 2, and 3		2, and 3	N-760
Use of 22Cr-5Ni-3Mo-N (Alloy UNS S32205 Austenitic/Ferritic	IV-033	Section III — Division 2	14-700
Duplex Stainless Steel) Forgings, Plate, Welded and Seamless		Code For Concrete Containments	
Pipe and Tubing, and Fittings to SA-182, SA-240, SA-789, A		Alternative Qualification Requirements for Concrete Level III	
790-04a, SA-815, Classes 2 and 3	N 7/1	Inspection Personnel	N 011
Use of 44Fe-25Ni-21Cr-Mo (Alloy UNS N08904) Plate, Bar,	N-/41	Alternative to the Registered Professional Engineer	N-011
	N 627		N 027
Fittings, Welded Pipe, and Welded Tube, Classes 2 and 3	IN-037	Requirements	
Use of 46Fe-24Ni-21Cr-6Mo-Cu-N (UNS N08367) Bolting	N 746	• •	
Materials for Class 2 and 3 Components	11-/40	Application of the ASME NPT Stamp	14-027
Use of 6061-T6 and 6061-T651 Aluminum for Class 1 Nuclear	N E10		
Components		Without Postweld Heat Treatment as Containment Liner	
Use of Alloy 600 With Columbium Added		Material or Structural Attachments to the Containment Liner,	N 763
Use of Code Editions, Addenda, and Cases	N-/82	Subsection CC	
Use of Die Forgings, SB-247, UNS A96061, Class T6, With		Calibration of C _v Impact Test Machines	
Thickness ≤4.000 in. Material, Class 2 Construction (1989	N 010	Design of Interaction Zones for Concrete Containments	N-258
Edition With the 1991 Addenda or Earlier)	N-81A		

NC – SUPP. 1 xviii

Subject Cas	se Subject	Case
Section III — Division 2	Section XI, Division 1	
Code For Concrete Containments (Cont'd)	Rules for Inservice Inspection of Nuclear Power Plant Compo	onents
Equivalent Rectangular Compressive Stress Block for Concrete	(Cont'd)	
Containment N-85		1-639
Extruded Steel Sleeves With Parallel Threaded Ends N-79	· · · · · · · · · · · · · · · · · · ·	
Minimum Nonprestressed Reinforcement in the Containment	Radially Oriented Planar Flaws	
Base Mat or Slab Required for Concrete Crack Control N-83		
Shear Screw and Sleeve Splice	į į į	
Threaded Sleeves With Parallel Threads Cut on Upsized Bar	Alternative Classification and Examination Requirements N Alternative Examination Coverage for Class 1 and Class 2 Welds N	
Ends	ů .	100
Twisting of Horizontal Prestressing Tendons		
Use of ASTM A572, Grades 50 and 65 for Structural Attachments	Welds N	N-711
to Class CC Containment Liners N-63	Alternative Examination Requirements and Acceptance	
Use of Grades 75 and 80 Reinforcement in Concrete	Standards for Class 1 PWR Piping and Vessel Nozzle Butt	
Containments N-80	Welds Fabricated With UNS N06082 or UNS W86182 Weld	
Use of SA-533/SA-533M, Type B, Class 2, Plate for Structural	Filler Material With or Without Application of Listed	
Attachments to Class CC Containment Liners N-63	Mitigation Activities	N-770
Use of Stud Welds to Anchor Section III, Division 1, Class MC	Alternative Examination Requirements for Class 1, Category B-J	
Vessels to Section III, Division 2, Class CC Concrete	Piping Welds	N-560
Containment Structures	•	
Welded Radial Shear Bar Assemblies	51	
Section III — Division 3 Containments for Transportation and Storage of Spent Nuclea	Nozzles	N-5/5
Fuel and High Level Radioactive Material and Waste	Upper Heads With Nozzles Having Pressure-Retaining	
Alternative Rules to the Provisions of NCA-3800, Requirements	Partial-Penetration Welds N	J-729
for Purchase of Material		,,,,
Alternative to the Registered Professional Engineer	Table IWC-2500-1 for PWR Stainless Steel Residual and	
Requirements N-83	Regenerative Heat Exchangers N	N-706
Application of the ASME Certification Mark N-82	Alternative Inspection Program for Longer Fuel Cycles N	V-842
Application of the ASME NPT Stamp N-85		
Calibration of C_v Impact Test Machines N-77	<u> </u>	N-851
Metal Containment Shell Buckling Design Methods, Class MC, TC,	Alternative Methods — Qualification for Nozzle Inside Radius	
and SC Construction		N-552
Use of Eddy Current Examination in Lieu of Liquid Penetrant	Alternative Pressure Testing Requirements Following Repair/	
Examination	Replacement Activities for Class 1 Piping Between the First and Second Injection Isolation Valves	1 042
Internals in Non-Pressure Retaining Applications Above	Alternative Pressure Testing Requirements for Class 1 Piping	1-043
700°F (370°C)	v .	1-800
Use of Ultrasonic Examination in Lieu of Radiography for Weld	Alternative Pressure Testing Requirements for Class 1 Piping	
Examination N-65	Between the First and Second Vent, Drain, and Test Isolation	
Section III — Division 5	Devices	1-798
High Temperature Reactors	Alternative Pressure Testing Requirements for Class 2 and 3	
Alternate Creep-Fatigue Damage Envelope for 9Cr-1Mo-V Steel N-81		N-854
Alternative to the Registered Professional Engineer	Alternative Pressure-Temperature Relationship and Low	1.641
Requirements		N-041
Application of the ASME NPT Stamp	· · · · · · · · · · · · · · · · · · ·	J-773
Calculation of Creep-Fatigue for Division 5 Class A Components	Alternative Qualification Requirements for Personnel	. , , ,
at Elevated Temperature Service Using Elastic-Perfectly	Performing Class CC Concrete and Post-Tensioning System	
Plastic Analysis N-86	Visual Examinations	I-739
Satisfaction of Strain Limits for Division 5 Class A Components at	Alternative Repair/Replacement Requirements for Items	
Elevated Temperature Service Using Elastic-Perfectly Plastic	Classified in Accordance With Risk-Informed Processes N	N-662
Analysis N-86	· · · · · · · · · · · · · · · · · · ·	
Use of 52Ni-22Cr-13Co-9Mo Alloy 617 (UNS N06617) for Low	Report, Completion Time	N-892
Temperature Service Construction		1 400
Section XI, Division 1 Rules for Inservice Inspection of Nuclear Power Plant Compone	Testing for Class 1, 2, and 3 Systems	N-498
Acceptance Criteria for Flaws in Ferritic Steel Components 4 in.	or 3 Items	J-771
and Greater in Thickness		. , , 1
Alternative Acceptance Criteria for Flaws in Ferritic Steel	Connections to Class 2 and 3 Components	V-882
Components Operating in the Upper Shelf Temperature Range N-74		
Alternative Additional Examination Requirements for Classes 1,	Refracted Longitudinal Wave Search Units N	N-665
2, and 3 Piping, Components, and Supports N-58	36	

xix NC – SUPP. 1

Section XI, Division 1	
Rules for Inservice Inspection of Nuclear Power Plant Com	ponents
(Cont'd)	
Alternative Requirements for Boiling Water Reactor (BWR)	
Nozzle Inner Radius and Nozzle-to-Shell Welds	N-702
Alternative Requirements for Bolting Affected by Borated Water	
Leakage	N-775
Alternative Requirements for BWR Class 1 System Leakage Test	
Pressure Following Repair/Replacement Activities	N-795
Alternative Requirements for Classes 1 and 2 Surface	
Examinations	N-663
Alternative Requirements for Examination of Control Rod Drive	
Housing Welds	N-825
Alternative Requirements for Inner Radius Examinations of Class	
1 Reactor Vessel Nozzles	N-648
Alternative Requirements for IWE-5240 Visual Examination	
Alternative Requirements for Nozzle Inner Radius Inspections	
for Class 1 Pressurizer and Steam Generator Nozzles	N-619
Alternative Requirements for Pad Reinforcement of Class 2 and 3	
Atmospheric Storage Tanks	N-865
Alternative Requirements for Pad Reinforcement of Class 2 and 3	
Moderate-Energy Carbon Steel Piping for Raw Water Service	N-789
Alternative Requirements for Preparation and Submittal of	
Plans, Schedules, and Preservice and Inservice Inspection	
Summary Reports	N-778
Alternative Requirements for Preservice Volumetric and Surface	
Examination	N-813
Alternative Requirements for Sleeve Reinforcement of Class 2	
and 3 Moderate-Energy Carbon Steel Piping	N-786
Alternative Requirements for Successive Inspections of Class 1	
and 2 Vessels	N-526
Alternative Requirements for Table IWB-2500-1, Examination	
Category B-N-1, Interior of Reactor Vessel, Category B-N-2,	
Welded Core Support Structures and Interior Attachments to	
Reactor Vessels, Category B-N-3, Removable Core Support	
Structures	N-885
Alternative Requirements for Upgrade, Substitution, or	
Reconfiguration of Examination Equipment When Using	
Appendix VIII Qualified Ultrasonic Examination Systems	N-780
Alternative Requirements for Visual Examinations, VT-1, VT-2,	
and VT-3	N-686
Alternative Requirements for Wall Thickness Restoration of	
Class 2 and 3 Carbon Steel Piping for Raw Water Service	N-661
Alternative Requirements for Wall Thickness Restoration of	
Class 2 and High Energy Class 3 Carbon Steel Piping	N-561
Alternative Requirements for Wall Thickness Restoration of	
Class 3 Moderate Energy Carbon Steel Piping	N-562
Alternative Requirements to Categories B-G-1, B-G-2, and C-D	
Bolting Examination Methods and Selection Criteria	N-652
Alternative Requirements to Stress-Based Selection Criteria for	
Category B-J Welds	N-609
Alternative Rules for Repair by Electrochemical Deposition of	
Classes 1 and 2 Steam Generator Tubing	N-569
Alternative Rules for Renair of Classes 1 2 and 3 Austenitic	

Section XI, Division 1 **Rules for Inservice Inspection of Nuclear Power Plant Components** (Cont'd) Alternative to IWA-5244 Requirements for Buried Piping N-776 Alternative to Procurement Requirements of IWA-4143 for Small Nonstandard Welded Fittings N-880 Alternative to QA Program Requirements of IWA-4142 N-878 Alternative Volumetric Coverage Requirements for Ultrasonic

Examination of Class 1 Nozzle-to-Vessel Welds Alternative Volumetric Coverage Requirements for Ultrasonic Examination of Class 1 and 2 Pressure Vessel Weld Joints	N-858
Greater Than 2 in. (50 mm) in Thickness	N-768
Piping Buried in a Back-Filled Trench	N-806
Interval for Pressurized Water Reactor Vessels	
Technique	N-876
Technique	
Class 1 and 2 Applications	N-840
Clarification of NDE Practical Examination Requirements \hdots	
Class 1 Socket Weld Examinations	N-712
Class 3 Nonmetallic Cured-In-Place Piping	N-589
Corrective Action for Leakage Identified at Bolted Connections. Direct Use of Master Fracture Toughness Curve for	N-566
Pressure-Retaining Materials of Class 1 Vessels	N-830
Dissimilar Metal Welds Joining Vessel Nozzles to Components . Evaluation Criteria for Temporary Acceptance of Degradation in	N-799
Moderate Energy Class 2 or 3 Vessels and Tanks	N-705
Evaluation Criteria for Temporary Acceptance of Flaws in Class 2 or 3 Piping	N-869
Evaluation Criteria for Temporary Acceptance of Flaws in	
Moderate Energy Class 2 or 3 Piping and Gate Valves	N-513
Evaluation of Pipe Wall Thinning	N-597
Evaluation Procedure and Acceptance Criteria for PWR Reactor	
Vessel Head Penetration Nozzles	N-694
Examination Requirements for Steam Generator Nozzle- to-Vessel Welds	
Examination Requirements for the Core Makeup Tanks	
Experience Credit for Ultrasonic Examiner Certification Fatigue Crack Growth Rate Curves for Ferritic Steels in PWR	N-784
Water Environment	N-643
Ferritic and Dissimilar Metal Welding Using SMAW Temper Bead Technique Without Removing the Weld Bead Crown for the	
First Layer	N-651
Piping	N-838
Mitigation of Class 1, 2, and 3 Items	N-740
Without Removal	N-849
In-Place Dry Annealing of a PWR Nuclear Reactor Vessel	N-557
Lighting Requirements for Surface Examination	N-685
Location of Ultrasonic Depth-Sizing Flaws	N-537
Materials Exempted From G-2110(b) Requirement	N-890
Method for Determining Maximum Allowable False Calls When	., 0,0
Performing Single-Sided Access Performance Demonstration	
in Accordance With, Appendix VIII, Supplements 4 and 6	N-683

NC - SUPP. 1 XX

IWA-2430..... N-765

Stainless Steel Piping N-504

Welded Attachments for Examination N-700

Alternative Rules for Selection of Classes 1, 2, and 3 Vessel

Alternative to Class 1 Extended Boundary End of Interval or Class 2 System Leakage Testing of the Reactor Vessel Head Flange O-Ring Leak-Detection System N-805

Alternative to Inspection Interval Scheduling Requirements of

Alternative to Augmented Examination Requirements of

Section XI, Division 1		Section XI, Division 1			
Rules for Inservice Inspection of Nuclear Power Plant Com (Cont'd)	ponents	Rules for Inservice Inspection of Nuclear Power Plant Com (Cont'd)	ponents		
Mitigation of Flaws in NPS 2 (DN 50) and Smaller Nozzles and		Roll Expansion of Class 1 Control Rod Drive Bottom Head			
Nozzle Partial Penetration Welds in Vessels and Piping by Use		Penetrations in BWRs	N-730		
of a Mechanical Connection Modification	N-733	Roll Expansion of Class 1 In-Core Housing Bottom Head			
Nickel Alloy Reactor Coolant Inlay and Onlay for Mitigation of		Penetrations in BWRs	N-769		
PWR Full Penetration Circumferential Nickel Alloy Dissimilar		Rotation of Snubbers and Pressure Retaining Items for the	, 0 ,		
Metal Welds in Class 1 Items	N-766	Purpose of Testing or Preventive Maintenance	N-508		
Optimized Structural Dissimilar Metal Weld Overlay for	11 700	Similar and Dissimilar Metal Welding Using Ambient	., 500		
Mitigation of PWR Class 1 Items	N-754	Temperature Automatic or Machine Dry Underwater Laser			
Partial Excavation and Deposition of Weld Metal for Mitigation of	11 751	Beam Welding (ULBW) Temper Bead Technique	N-803		
Class 1 Items	N-847	Similar and Dissimilar Metal Welding Using Ambient	11 005		
Performance Demonstration Requirements for Examination of	11 017	Temperature Machine GTAW Temper Bead Technique	N-638		
Unclad Reactor Pressure Vessel Welds, Excluding Flange		Similar and Dissimilar Metal Welding Using Ambient	11 050		
Welds	N-664	Temperature Machine GTAW Temper Bead Technique for			
Pipe Specific Evaluation Procedures and Acceptance Criteria for	14 00 1	BWR CRD Housing/Stub Tube Repairs	N-606		
Flaws in Piping that Exceed the Acceptance Standards	N_4.Q4.	Similar and Dissimilar Metal Welding Using Ambient	14-000		
Pressure Testing of Containment Penetration Piping		Temperature SMAW Temper Bead Technique	N-830		
Pressurized Water Reactor (PWR) Examination and Alternative	N-/31	Successive Inspections			
Examination Requirements for Pressure Retaining Welds in Control Rod Drive and Instrument Nozzle Housings	N 607	Successive Inspections of Class 1 and 2 Piping Welds	N-/33		
ě .	N-097	Temper Bead Procedure Qualification Requirements for Repair/	N 762		
Purchase, Exchange, or Transfer of Material Between Nuclear Plant Sites	N E20	Replacement Activities Without Postweld Heat Treatment	N-762		
	N-320	Temporary Acceptance of Leakage Through Brazed Joints of			
PWR Class 1 Primary Piping Alloy 600 Full Penetration Branch		Class 3 Copper, Copper-Nickel, and Nickel-Copper Moderate	N 074		
Connection Weld Metal Buildup for Material Susceptible to	N OF 2	Energy Piping			
Primary Water Stress Corrosion Cracking		Third Party NDE Certification Organizations			
Qualification Requirements for Bolts and Studs		Third-Party NDE Certification for Non-U.S. Plant Sites	N-868		
Qualification Requirements for Dissimilar Metal Piping Welds .	N-695	Transfer of Welder, Welding Operator, Brazer, and Brazing	N. 600		
Qualification Requirements for Full Structural Overlaid Wrought	N (FO	Operator Qualifications Between Owners			
Austenitic Piping Welds	N-653	Ultrasonic Examination in Lieu of Radiography	N-713		
Qualification Requirements for Mandatory Appendix VIII Piping	N. 60.6	Ultrasonic Examination in Lieu of Radiography for Welds in	N 004		
Examinations Conducted From the Inside Surface	N-696	Ferritic or Austenitic Pipe	N-831		
Qualification Requirements for Ultrasonic Examination of		Ultrasonic Examination of Cast Austenitic Piping Welds From the			
Wrought Austenitic Piping Welds		Outside Surface	N-824		
Quality Assurance Program Requirements for Owners		Ultrasonic Examination of Full Penetration Nozzles in Vessels,			
Reactor Vessel Head-to-Flange Weld Examinations		Examination Category B-D, Reactor Nozzle-To-Vessel Welds			
Reactor Vessel Threads in Flange Examinations	N-864	and Nozzle Inside Radius Section, Figures IWB-2500-7(a), (b),			
Reference Fatigue Crack Growth Rate Curves for Austenitic		(c), and (d)	N-613		
Stainless Steels in Pressurized Water Reactor Environments .	N-809	Ultrasonic Examination of Full Penetration Vessel Weld Joints in			
Reference Stress Corrosion Crack Growth Rate Curves for		Figures IWB-2500-1 Through IWB-2500-6			
Irradiated Austenitic Stainless Steels in Light Water Reactor		Underwater Welding	N-516		
Environments	N-889	Use of a Reactor Pressure Vessel as a Transportation			
Repair of Buried Class 2 and 3 Piping Using Carbon		Containment System	N-618		
Fiber-Reinforced Polymer Composite	N-871	Vision Tests			
Repair of Classes 1 and 2 SB-163, UNS N06600 Steam Generator		Visual Examination	N-823		
Tubing	N-576	Visual Examinations for PWR Pressure Retaining Welds in Class			
Repair Welding Using Automatic or Machine Gas Tungsten-Arc		1 Components Fabricated With Alloy 600/82/182 Materials.	N-722		
Welding (GTAW) Temper Bead Technique	N-432	Weld Overlay of Class 1, 2, and 3 Socket Welded Connections	N-666		
Repair/Replacement Activity Documentation Requirements and		Section XI, Division 3			
Inservice Inspection Summary Report Preparation and		Rules for Inspection and Testing of Components of Liq	լuid-		
Submission	N-532	Metal-Cooled Plants			
Risk-Informed Requirements for Class 1, 2, or 3 Piping, Method		Alternative Inservice Inspection Requirements for Liquid-Metal			
A	N-577	Reactor Passive Components	N-875		
Risk-Informed Requirements for Class 1, 2, or 3 Piping, Method					
В	N-578				
Risk-Informed Safety Classification for Use in Risk-Informed					
Repair/Replacement Activities	N-660				

xxi NC – SUPP. 1

APPLICABILITY INDEX FOR SECTION XI CASES

This Index provides the range of Section XI Editions and Addenda applicable to each Section XI Case.

Code Case		Applicability		
No.	Title	From	Up to and Including	
N-34	Inservice Inspection of Welds on Nuclear Components	1970 Edition	1971 Edition with the Summer 1973 Addenda	
N-72	Partial Postponement of Category B-C Examinations for Class 1 Components	1974 Edition	1977 Edition with the Winter 1977 Addenda	
N-73	Partial Postponement of Category B-D Examinations for Class 1 Components	1974 Edition	1977 Edition with the Winter 1977 Addenda	
N-98	Ultrasonic Examination — Calibration Block Tolerances [Note (1)]:			
	(a) For Division 1	1974 Edition	1977 Edition with the Summer 1978 Addenda	
	(b) For Division 2	1974 Edition with the Winter 1975 Addenda	Not applicable	
N-112	Acceptance Standards Class 2 and 3 Components	1974 Edition	1974 Edition with the Winter 1975 Addenda	
N-113	Basic Calibration Block for Ultrasonic Examination of Welds 10 in. to 13 in. Thick	1971 Edition with the Summer 1973 Addenda	1974 Edition with the Summer 1976 Addenda	
N-113-1	Basic Calibration Block for Ultrasonic Examination of Welds 10 in. to 14 in. Thick	1971 Edition with the Summer 1973 Addenda	2001 Edition	
N-118	Examination — Acceptance Standards for Surface Indications in Cladding	1974 Edition with the Summer 1974 Addenda	1974 Edition with the Winter 1975 Addenda	
N-166	Reference by Section XI to N626.1-1975 for Qualification and Duties of Authorized Nuclear Inservice Inspection	1974 Edition	1977 Edition	
N-167	Minimum Section Thickness Requirements for Repair of Nozzles	1974 Edition	1977 Edition with the Winter 1977 Addenda	
N-198	Exemption From Examination for ASME Class 2 Piping Located at Containment Penetrations	1974 Edition with the Summer 1976 Addenda	1977 Edition with the Winter 1977 Addenda	
N-198-1 N-209	Exemption From Examination for ASME Class 1 and 2 Piping Located at Containment Penetrations Conditional Acceptance of Identifiable Isolated or Random	1974 Edition with the Summer 1976 Addenda	1992 Edition with the 1993 Addenda	
N-207	Rounded Indications			
	(a) For Class 1 Systems	1974 Edition	1980 Edition with the Winter 1980 Addenda	
	(b) For Class 2 Systems	1974 Edition with the Summer 1976 Addenda	1983 Edition	
N-210	Exemptions to Hydrostatic Test After Repairs	1974 Edition	1977 Edition with the Winter 1977 Addenda	
N-211	Recalibration of Ultrasonic Equipment Upon Change of Personnel			
	(a) To meet requirements of I-4230	1971 Edition with the Summer 1973 Addenda	1974 Edition with the Summer 1976 Addenda	
	(b) To meet requirements of III-3330	1977 Edition	1980 Edition	
N-216	Alternative Rules for Reactor Vessel Closure Stud Examination	1977 Edition	1977 Edition with the Winter 1977 Addenda	
N-234	Time Between Ultrasonic Calibration Checks			
	(a) To meet requirements of I-4230	1971 Edition with the Summer 1973 Addenda	1974 Edition with the Summer 1976 Addenda	
N 005	(b) To meet requirements of III-3330	1977 Edition	1980 Edition	
N-235	Ultrasonic Calibration Checks per Section V	1976 Addenda	1977 Edition with the Summer 1979 Addenda	
N-236	Repair and Replacement of Class MC Vessels	1974 Edition	1983 Edition with the Winter 1984 Addenda	

xxvii NC – SUPP. 1

Code Case		Applicability		
No.	Title	From	Up to and Including	
N-236-1	Repair and Replacement of Class MC Vessels	1974 Edition	1989 Edition with the 1990 Addenda	
N-252	Low Energy Capacitive Discharge Welding Method for Temporary or Permanent Attachments to Components and Supports	1971 Edition	1980 Edition with the Winter 1980 Addenda	
N-278	Alternative Ultrasonic Calibration Block Configuration, I-3131 and T-434.3			
	(a) To meet requirements of I-3131	1974 Edition	1974 Edition with the Summer 1976 Addenda	
	(b) To meet requirements of T-434.3	1977 Edition	1983 Edition with the Winter 1984 Addenda	
N-288	Hydrostatic Test Requirements for Class 1 and 2 Components	1974 Edition	1980 Edition with the Winter 1980 Addenda	
N-306	Calibration Block Material Selection, Appendix I, I-3121 [Note (2)]	1974 Edition with the Summer 1975 Addenda	1974 Edition with the Summer 1976 Addenda	
N-307	Revised Ultrasonic Examination Volume for Class 1 Bolting, Examination Category B-G-1, When the Examinations Are Conducted From the Center- Drilled Hole	1974 Edition	1983 Edition with the Winter 1984 Addenda	
N-307-1	Revised Ultrasonic Examination Volume for Class 1 Bolting, Table IWB-2500-1, Examination Category B-G-1, When the	1974 Edition	1998 Edition with the 1999 Addenda	
N-307-2	Examinations Are Conducted From the Center-Drilled Hole Revised Ultrasonic Examination Volume for Class 1 Bolting, Table IWB-2500-1, Examination Category B-G-1, When the Examinations Are Conducted From the End of the Bolt or Stud or From the Center- Drilled Hole	1974 Edition	1998 Edition with the 1999 Addenda	
N-307-3	Ultrasonic Examination of Class 1 Bolting, Table IWB-2500-1, Examination Category B-G-1	1974 Edition	1998 Edition with the 1999 Addenda	
N-308	Documentation of Repairs and Replacements of Components in Nuclear Power Plants	1974 Edition	1980 Edition with the Winter 1981 Addenda	
N-311	Alternative Examination of Outlet Nozzle on Secondary Side of Steam Generators	1977 Edition with the Winter 1977 Addenda	2004 Edition	
N-322	Examination Requirements for Integrally Welded or Forged Attachments to Class 1 Piping at Containment Penetrations	1977 Edition with the Summer 1978 Addenda	1992 Edition with the 1993 Addenda	
N-323	Alternative Examinations for Integrally Welded Attachments to Vessels	1974 Edition	1974 Edition with the Winter 1976 Addenda	
N-323-1	Alternative Examination for Welded Attachments to Pressure Vessels	1980 Edition with the Winter 1981 Addenda	1995 Edition with the 1996 Addenda	
N-334	Examination Requirements for Integrally Welded or Forged Attachments to Class 2 Piping at Containment Penetrations	1977 Edition with the Summer 1978 Addenda	1980 Edition with the Summer 1980 Addenda	
N-335	Rules for Ultrasonic Examination of Similar and Dissimilar Metal Piping Welds	1974 Edition	1980 Addenda 1980 Edition with the Winter 1981 Addenda	
N-335-1	Rules for Ultrasonic Examination of Similar and Dissimilar Metal Piping Welds	1974 Edition	1980 Edition with the Winter 1981 Addenda	
N-343	Alternative Scope of Examination of Attachment Welds for Examination Categories B-H, B-K-1, and C-C	1974 Edition	1980 Edition with the Winter 1981 Addenda	
N-355	Calibration Block for Angle Beam Ultrasonic Examination of Large Fittings in Accordance With Appendix III-3410 [Note (3)]	1974 Edition with the Winter 1975 Addenda	1983 Edition	
N-356	Certification Period for Level III NDE Personnel	1977 Edition with the Winter 1977 Addenda	1983 Edition	
N-375	Rules for Ultrasonic Examination of Bolts and Studs	1980 Edition	1980 Edition with the Winter 1981 Addenda	
N-375-1	Rules for Ultrasonic Examination of Bolts and Studs	1980 Edition	1980 Edition with the Winter 1981 Addenda	
N-375-2	Rules for Ultrasonic Examination of Bolts and Studs	1971 Edition	1983 Edition	
N-389	Alternative Rules for Repairs, Replacements, or Modifications	1974 Edition with the Summer 1975 Addenda	1986 Edition with the 1987 Addenda	
N-389-1	Alternative Rules for Repairs, Replacements, or Modifications	1974 Edition with the Summer 1975 Addenda	1992 Edition with the 1993 Addenda	
N-390	Evaluation Criteria for Flaws Located in a Flange or Shell Region Near a Structural Discontinuity	1974 Edition with the Summer 1975 Addenda	1983 Edition with the Summer 1983 Addenda	

NC - SUPP. 1 xxviii

Code Case		Applicability	
No.	Title	From	Up to and Including
N-401	Eddy Current Examination	1974 Edition with the	1989 Edition with the 1989
		Summer 1976 Addenda	Addenda
N-401-1	Eddy Current Examination	1974 Edition with the Summer 1974 Addenda	1989 Edition with the 1989 Addenda
N-402	Eddy Current Calibration Standard Material	1980 Edition with the Winter 1980 Addenda	1989 Edition with the 1989 Addenda
N-402-1	Eddy Current Calibration Standards	1980 Edition with the Winter 1980 Addenda	1989 Edition with the 1989 Addenda
N-406	Alternative Rules for Replacement	1977 Edition with the Summer 1978 Addenda	1986 Edition
N-408	Alternative Rules for Examination of Class 2 Piping	1974 Edition	1983 Edition
N-408-1	Alternative Rules for Examination of Class 2 Piping	1974 Edition	1983 Edition
N-408-2	Alternative Rules for Examination of Class 2 Piping	1974 Edition	1989 Edition
N-408-3	Alternative Rules for Examination of Class 2 Piping	1974 Edition	1989 Edition
N-409	Procedure and Personnel Qualification for Ultrasonic Detection and Sizing of Intergranular Stress Corrosion Cracking in Austenitic Piping Welds		1986 Edition with the 1986 Addenda
N-409-1	Procedure and Personnel Qualification Requirements for Ultrasonic Detection and Sizing of Intergranular Stress Corrosion Cracking in Austenitic Piping Welds	1974 Edition	1986 Edition with the 1987 Addenda
N-409-2	Procedure and Personnel Qualification Requirements for Ultrasonic Detection and Sizing of Intergranular Stress Corrosion Cracking in Austenitic Piping Welds	1974 Edition	1989 Edition
N-409-3	Procedure and Personnel Qualification Requirements for Ultrasonic Detection and Sizing of Intergranular Stress Corrosion Cracking in Austenitic Piping Welds	1974 Edition	1989 Edition
N-415	Alternative Rules for Testing Pressure Relief Devices	1974 Edition	1983 Edition with the Winter 1984 Addenda
N-416	Alternative Rules for Hydrostatic Testing of Repair or Replacement of Class 2 Piping	1974 Edition	1989 Edition with the 1990 Addenda
N-416-1	Alternative Pressure Test Requirement for Welded Repairs or Installation of Replacement Items by Welding Class 1, 2, and 3	1974 Edition	1998 Edition
N-416-2	Alternative Pressure Test Requirement for Welded Repairs, Fabrication Welds for Replacement Parts and Piping Subassemblies, or Installation of Replacement Items by Welding, Class 1, 2, and 3	1977 Edition with the Summer 1978 Addenda	1998 Edition
N-416-3	Alternative Pressure Test Requirement for Welded or Brazed Repairs, Fabrication Welds or Brazed Joints for Replacement Parts and Piping Subassemblies, or Installation of Replacement Items by Welding or Brazing, Classes 1, 2, and 3	1977 Edition with the Summer 1978 Addenda	1998 Edition
N-416-4	Alternative Pressure Test Requirement for Welded or Brazed Repairs, Fabrication Welds or Brazed Joints for Replacement Parts and Piping Subassemblies, or Installation of Replacement Items by Welding or Brazing, Classes 1, 2, and 3		2001 Edition with the 2002 Addenda
N-419	Extent of VT-1 Examinations, Category B-G-1 of Table IWB-2500-1	1977 Edition with the Summer 1978 Addenda	1983 Edition with the Winter 1984 Addenda
N-424	Qualification of Visual Examination Personnel	1977 Edition with the Summer 1978 Addenda	1983 Edition
N-426	Extent of VT-1 Examinations, Category B-G-2 of Table IWB-2500-1	1977 Edition with the Summer 1978 Addenda	1983 Edition with the Winter 1984 Addenda
N-427	Code Cases in Inspection Plans	1971 Edition	1986 Edition
N-429	Alternate Rules for Ultrasonic Instrument Calibration	1980 Edition with the Winter 1980 Addenda	1983 Edition with the Winter 1983 Addenda
N-429-1	Alternative Rules for Ultrasonic Instrument Calibration	1980 Edition with the Winter 1980 Addenda	1986 Edition with the 1986 Addenda
N-432	Repair Welding Using Automatic or Machine Gas Tungsten-Arc Welding (GTAW) Temper Bead Technique	1971 Edition with the Summer 1973 Addenda	1989 Edition with the 1990 Addenda
N-432-1	Repair Welding Using Automatic or Machine Gas Tungsten-Arc Welding (GTAW) Temper Bead Technique	1971 Edition with the Summer 1973 Addenda	2017 Edition
N-435	Alternative Examination Requirements for Vessels With Wall Thickness 2 in. or Less	1974 Edition with the Summer 1975 Addenda	1986 Edition

xxix NC – SUPP. 1

Code Case		Арр	licability
No.	Title	From	Up to and Including
N-435-1	Alternative Examination Requirements for Vessels With Wall	1974 Edition with the	1995 Edition
	Thickness 2 in. or Less	Summer 1975 Addenda	
N-436	Alternative Methods for Evaluation of Flaws in Austenitic Piping		1986 Edition
N-436-1	Alternative Methods for Evaluation of Flaws in Austenitic Piping		1986 Edition
N-437	Use of Digital Readout and Digital Measurement Devices for Performing Pressure Tests	1974 Edition	1986 Edition
N-444	Preparation of Inspection Plans	1974 Edition with the	1986 Edition with the 1986
.,	Treparation of hispection Flans	Summer 1975 Addenda	Addenda
N-445	Use of Later Edition of SNT-TC-1A for Qualification of	1977 Edition with the	1986 Edition
	Nondestructive Examination Personnel	Summer 1978 Addenda	
N-446	Recertification of Visual Examination Personnel	1977 Edition with the	1986 Edition
N. 440	O NO 11 CIMO IIMO II I I I I I I I I	Summer 1978 Addenda	4006 F. IV. VI. J. 4007
N-448	Qualification of VT-2 and VT-3 Visual Examination Personnel	1977 Edition with the Summer 1978 Addenda	1986 Edition with the 1987 Addenda
N-449	Qualification of VT-4 Visual Examination Personnel	1977 Edition with the	1983 Edition with the Winter
.,,	Quantication of 1.1.1 (Issue Zhammadon Forsonne)	Summer 1978 Addenda	1983 Addenda
N-457	Qualification Specimen Notch Location for Ultrasonic	1983 Edition with the Winter	1992 Edition with the 1993
	Examination of Bolts and Studs	1983 Addenda	Addenda
N-458	Magnetic Particle Examination of Coated Materials	1980 Edition with the Winter	1995 Edition
N 450 1	Manustic Bookide Franciscotion of Control Materials	1981 Addenda	1005 546
N-458-1	Magnetic Particle Examination of Coated Materials	1980 Edition with the Winter 1981 Addenda	1995 Edition
N-460	Alternative Examination Coverage for Class 1 and Class 2 Welds		2007 Edition
N-461	Alternative Rules for Piping Calibration Block Thickness	1974 Edition with the	1995 Edition
	1 0	Summer 1975 Addenda	
N-461-1	Alternative Rules for Piping Calibration Block Thickness	1974 Edition with the	1995 Edition
N. 460		Summer 1975 Addenda	4000 7 101 11 4000
N-463	Evaluation Procedures and Acceptance Criteria for Flaws in	1983 Edition with the Winter 1983 Addenda	Addenda
	Class 1 Ferritic Piping That Exceed the Acceptance Standards of IWB-3514.2	1905 Addenda	Addenda
N-463-1	Evaluation Procedures and Acceptance Criteria for Flaws in	1983 Edition with the Winter	1989 Edition with the 1989
	Class 1 Ferritic Piping That Exceed the Acceptance Standards	1983 Addenda	Addenda
	of IWB-3514.2		
N-465	Alternative Rules for Pump Testing	1974 Edition with the Winter	
N-465-1	Alternative Rules for Pump Testing	1975 Addenda 1974 Edition with the 1975	Addenda 1995 Edition with the 1995
N-403-1	Alternative Rules for Fullip Testing	Addenda	Addenda
N-471	Acoustic Emissions for Successive Inspections	1974 Edition	1998 Edition with the 1999
	·		Addenda
N-472	Use of Digital Readout and Digital Measurement Devices for	1974 Edition	1986 Edition with the 1987
	Performing Pump Vibration Testing		Addenda
N-473	Alternate Rules for Valve Testing	1974 Edition with the Summer 1975 Addenda	1986 Edition with the 1987 Addenda
N-473-1	Alternative Rules for Valve Testing	1974 Edition with the 1975	1995 Edition with the 1995
	The rate rate rate resumg	Addenda	Addenda
N-478	Inservice Inspection for Class CC Concrete Components of	1974 Edition	1986 Edition with the 1987
	Light-Water Cooled Power Plants		Addenda
N-479	Boiling Water Reactor (BWR) Main Steam Hydrostatic Test	1977 Edition with the Winter	
N-479-1	Boiling Water Reactor (BWR) Main Steam Hydrostatic Test	1977 Addenda 1977 Edition with the Winter	Addenda
N-4/9-1	boiling water Reactor (BWR) Main Steam nyurostatic rest	1977 Addenda	Addenda
N-480	Examination Requirements for Pipe Wall Thinning Due to Single		1992 Edition with the 1993
	Phase Erosion and Corrosion		Addenda
N-481	Alternative Examination Requirements for Cast Austenitic	1977 Edition with the	1998 Edition with the 1999
	Pump Casings	Summer 1978 Addenda	Addenda
N-485	Eddy Current Examination of Coated Ferritic Surfaces as an Alternative to Surface Examination	1980 Edition with the Winter	1989 Edition with the 1990 Addenda
N-485-1	Eddy Current Examination of Coated Ferritic Surfaces as an	1981 Addenda 1980 Edition with the Winter	
11 100 1	Alternative to Surface Examination	1981 Addenda	1,75 Buildon
N-486	Inservice Inspection, Repair, and Replacement Requirements	1974 Edition	1989 Edition
	for Class MC and Metallic Liners of Class CC Components		

NC – SUPP. 1 xxx

Code Case		Appl	icability
No.	Title	From	Up to and Including
N-489	Alternative Rules for Level III NDE Qualification Examinations	1974 Edition with the Summer 1975 Addenda	1989 Edition with the 1989 Addenda
N-490	Alternative Vision Test Requirements for Nondestructive Examiners	1974 Edition with the Summer 1975 Addenda	1989 Edition with the 1990 Addenda
N-490-1	Alternative Vision Test Requirements for Nondestructive Examiners	1974 Edition with the Summer 1975 Addenda	1989 Edition with the 1990 Addenda
N-491	Alternative Rules for Examination of Class 1, 2, 3, and MC Component Supports of Light-Water Cooled Power Plants	1977 Edition with the Summer 1978 Addenda	1989 Edition with the 1989 Addenda
N-491-1	Alternative Rules for Examination of Class 1, 2, 3, and MC Component Supports of Light-Water Cooled Power Plants	1977 Edition with the Summer 1978 Addenda	1989 Edition with the 1989 Addenda
N-491-2	Alternative Rules for Examination of Class 1, 2, 3, and MC Component Supports of Light-Water Cooled Power Plants	1977 Edition with the Summer 1978 Addenda	1995 Edition with the 1996 Addenda
N-494	Pipe Specific Evaluation Procedures and Acceptance Criteria for Flaws in Class 1 Ferritic Piping that Exceed the Acceptance Standards of IWB-3514.2	1974 Edition with the Winter 1975 Addenda	1995 Edition
N-494-1	Pipe Specific Evaluation Procedures and Acceptance Criteria for Flaws in Class 1 Ferritic Piping that Exceed the Acceptance Standards of IWB-3514.2	1974 Edition with the Winter 1975 Addenda	1995 Edition
N-494-2	Pipe Specific Evaluation Procedures and Acceptance Criteria for Flaws in Class 1 Ferritic Piping that Exceed the Acceptance Standards of IWB-3514.2	1974 Edition with the Winter 1975 Addenda	1995 Edition
N-494-3	Pipe Specific Evaluation Procedures and Acceptance Criteria for Flaws in Class 1 Ferritic Piping that Exceed the Acceptance Standards of IWB-3514.2 and in Class 1 Austenitic Piping that Exceed the Acceptance Standards of IWB-3514.3	1975 Addenda	1995 Edition
N-494-4	Pipe Specific Evaluation Procedures and Acceptance Criteria for Flaws in Piping that Exceed the Acceptance Standards	1983 Edition	2001 Edition
N-495	Hydrostatic Testing of Relief Valves	1977 Edition	1989 Edition with the 1990 Addenda
N-496	Helical-Coil Threaded Inserts	1977 Edition with the Summer 1978 Addenda	1989 Edition with the 1990 Addenda
N-496-1	Helical-Coil Threaded Inserts	1977 Edition with the Summer 1978 Addenda	1995 Edition
N-496-2	Helical-Coil Threaded Inserts	1977 Edition with the Summer 1978 Addenda	1998 Edition
N-498	Alternative Rules for 10-Year Hydrostatic Pressure Testing for Class 1 and 2 Systems	Summer 1975 Addenda	1992 Edition with the 1992 Addenda
N-498-1	Alternative Rules for 10-Year System Hydrostatic Testing for Class 1, 2, and 3 Systems	1974 Edition with the Summer 1975 Addenda	1998 Edition with the 2000 Addenda
N-498-2	Alternative Requirements for 10-Year System Hydrostatic Testing for Class 1, 2 and 3 Systems	1974 Edition with the Summer 1975 Addenda	1998 Edition with the 2000 Addenda
N-498-3	Alternative Requirements for 10-Year System Hydrostatic Testing for Class 1, 2 and 3 Systems	1974 Edition with the Summer 1975	1998 Edition with the 2000 Addenda
N-498-4	Alternative Requirements for 10-Year System Hydrostatic Testing for Class 1, 2 and 3 Systems	1974 Edition with the Summer 1975	1998 Edition with the 2000 Addenda
N-503	Limited Certification of Nondestructive Examination Personnel	Summer 1978 Addenda	1992 Edition
N-504	Alternative Rules for Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping	1977 Edition with the Summer 1978 Addenda	1986 Edition with the 1987 Addenda
N-504-1	Alternative Rules for Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping	1977 Edition with the Summer 1978 Addenda	1995 Edition
N-504-2	Alternative Rules for Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping	1977 Edition with the Summer 1978 Addenda	1995 Edition with the 1995 Addenda
N-504-3	Alternative Rules for Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping	1977 Edition with the Summer 1978 Addenda	2004 Edition
N-504-4	Alternative Rules for Repair of Class 1, 2, and 3 Austenitic Stainless Steel Piping	1977 Edition with the Summer 1978 Addenda	2004 Edition with the 2006 Addenda
N-508	Rotation of Serviced Snubbers and Pressure Relief Valves for the Purpose of Testing	1977 Edition	1989 Edition with the 1990 Addenda
N-508-1	Rotation of Serviced Snubbers and Pressure Relief Valves for the Purpose of Testing	1977 Edition	1995 Edition with the 1995 Addenda

xxxi NC – SUPP. 1

Code Case		Applicability	
No.	Title	From	Up to and Including
N-508-2	Rotation of Serviced Snubbers and Pressure Relief Valves for the Purpose of Testing	1977 Edition	1998 Edition with the 2000 Addenda
N-508-3	Rotation of Serviced Snubbers and Pressure Relief Valves for the Purpose of Testing	1977 Edition with the Winter 1978 Addenda	2001 Edition with the 2003 Addenda
N-508-4	Rotation of Snubbers and Pressure Retaining Items for the Purpose of Testing or Preventive Maintenance	1989 Edition	2007 Edition with the 2008 Addenda
N-509	Alternative Rules for the Selection and Examination of Classes 1, 2, and 3 Integrally Welded Attachments	1977 Edition with the Summer 1978 Addenda	1995 Edition
N-512	Assessment of Reactor Vessels with Low Upper Shelf Charpy Impact Energy Levels	1986 Edition with the 1987 Addenda	1992 Edition with the 1992 Addenda
N-512-1	Assessment of Reactor Vessels with Low Upper Shelf Charpy Impact Energy Levels	1986 Edition with the 1987 Addenda	1995 Edition
N-513	Evaluation Criteria for Temporary Acceptance of Flaws in Class $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	1977 Edition with the Summer 1978 Addenda	2001 Edition
N-513-1	Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping	1977 Edition with the Summer 1978 Addenda	2001 Edition
N-513-2	Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping	1977 Edition with the Summer 1978 Addenda	2001 Edition with the 2003 Addenda
N-513-3	Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping	1983 Edition with the Winter 1985 Addenda	2008 Addenda
N-513-4	Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping	1995 Edition with the 1996 Addenda	2010 Edition with the 2011 Addenda
N-513-5	Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping and Gate Valves	1995 Edition with the 1996 Addenda	2017 Edition
N-514	Low Temperature Overpressure Protection	1986 Edition with the 1987 Addenda	1992 Edition with the 1992 Addenda
N-515	Class 1 Mechanical Joint- Pressure Tests	1980 Edition with the Winter 1980 Addenda	1990 Addenda
N-516	Underwater Welding	1977 Edition with the Summer 1978 Addenda	1995 Edition with the 1995 Addenda
N-516-1	Underwater Welding	1977 Edition with the Summer 1978 Addenda	1995 Edition with the 1995 Addenda
N-516-2	Underwater Welding	1974 Edition with the Summer 1978 Addenda	1995 Edition with the 1996 Addenda
N-516-3	Underwater Welding	1977 Edition with the Summer 1978 Addenda	2013 Edition
N-516-4	Underwater Welding	1995 Edition with the 1996 Addenda	2013 Edition
N-516-5	Underwater Welding	1995 Edition with the 1996 Addenda	2015 Edition
N-517	Quality Assurance Program Requirements for Owners	1977 Edition with the Summer 1978 Addenda	1995 Edition
N-517-1	Quality Assurance Program Requirements for Owners	1977 Edition with the Summer 1978 Addenda	2004 Edition with the 2006 Addenda
N-521	Alternative Rules for Deferral of Inspections of Nozzle- to-Vessel Welds, Inside Radius Sections and Nozzle- to-Safe End Welds of Pressurized Water Reactor (PWR) Vessel	1977 Edition	1995 Edition
N-522	Pressure Testing of Containment Penetration Piping	1974 Edition	1995 Edition with the 1996 Addenda
N-523	Mechanical Clamping Devices for Class 2 and 3 Piping	1977 Edition with the Summer 1978 Addenda	1995 Edition with the 1996 Addenda
N-523-1	Mechanical Clamping Devices for Class 2 and 3 Piping	1977 Edition with the Summer 1978 Addenda	1995 Edition with the 1996 Addenda
N-523-2	Mechanical Clamping Devices for Class 2 and 3 Piping	1977 Edition with the Summer 1978 Addenda	1995 Edition with the 1996 Addenda
N-524	Alternative Examination Requirements for Longitudinal Welds in Class 1 and 2 Piping		1995 Edition
N-526	Alternative Requirements for Successive Inspections of Class 1 and 2 Vessels		2010 Edition with the 2011 Addenda
N-528-1	Purchase, Exchange, or Transfer of Material Between Nuclear Plant Sites	1977 Edition with the Summer 1978 Addenda	2004 Edition with the 2005 Addenda

NC – SUPP. 1 xxxii

Code Case		Appl	licability
No.	Title	From	Up to and Including
N-532	Alternative Requirements to Repair and Replacement Documentation Requirements and Inservice Summary Report Preparation and Submission as Required by IWA-4000 and IWA-6000	1974 Edition with the Summer 1975 Addenda	1998 Edition with the 2000 Addenda
N-532-1	Alternative Requirements to Repair and Replacement Documentation Requirements and Inservice Summary Report Preparation and Submission	1981 Edition with the Winter 1983 Addenda	1998 Edition with the 2000 Addenda
N-532-2	Alternative Requirements to Repair/Replacement Activity Documentation Requirements and Inservice Summary Report Preparation and Submission	1981 Edition with the Winter 1983 Addenda	2001 Edition with the 2002 Addenda
N-532-3	Alternative Requirements to Repair/Replacement Activity Documentation Requirements and Inservice Summary Report Preparation and Submission	1981 Edition with the Winter 1983 Addenda	2001 Edition with the 2003 Addenda
N-532-4	Repair/Replacement Activity Documentation Requirements and Inservice Summary Report Preparation and Submission	1983 Edition with the Winter 1983 Addenda	2013 Edition [see Guideline for Cross-Referencing Section XI, Table 1, General Note (b)]
N-532-5	Repair/Replacement Activity Documentation Requirements and Inservice Inspection Summary Report Preparation and Submission	1995 Edition with the 1996 Addenda	2013 Edition
N-533	Alternative Requirements for VT-2 Visual Examination of Class 1 Insulated Pressure-Retaining Bolted Connections	1986 Edition	1998 Edition with the 2000 Addenda
N-533-1	Alternative Requirements for VT-2 Visual Examination of Class 1, 2, and 3 Insulated Pressure Retaining Bolted Connections	1989 Edition	1998 Edition with the 2000 Addenda
N-534	Alternative Requirements for Pneumatic Pressure Testing	1977 Edition with the Summer 1978 Addenda	1995 Edition with the 1997 Addenda
N-535	Alternative Requirements for Inservice Inspection Intervals	1977 Edition	1995 Edition with the 1995 Addenda
N-537	Location of Ultrasonic Depth-Sizing Flaws	1989 Edition with the 1989 Addenda	2001 Edition
N-538	Alternative Requirements for Length Sizing Performance Demonstrations in Accordance with Appendix VIII, Supplements 2, 3, 10, 11, and 12	1989 Edition with the 1989 Addenda	1995 Edition with the 1995 Addenda
N-541	Alternative Requirements for Performance Demonstration in Accordance with Appendix VIII, Supplements 4 and 6	1992 Edition with the 1993 Addenda	1995 Edition
N-542	Alternative Requirements for Nozzle Inside Radius Section Length Sizing Performance Demonstration	1989 Edition with the 1989 Addenda	1995 Edition
N-543	Alternative to Performing Periodic Calibration Checks	1977 Edition with the Summer 1978 Addenda	1989 Edition
N-544	Repair/Replacement of Small Items	1977 Edition with the Summer 1978 Addenda	1995 Edition
N-545	Alternative Requirements for Conduct of Performance Demonstration Detection Test of Reactor Vessel	1989 Edition	2004 Edition
N-546	$\label{eq:linear_equive_equive} Alternative \ Requirements for Qualification \ of \ VT-2 \ Examination \\ Personnel$		1995 Edition with the 1997 Addenda
N-547	Alternative Examination Requirements for Pressure Retaining Bolting of Control Rod Drive (CRD) Housings	1980 Edition with the Winter 1980 Addenda	
N-552	Alternative Methods — Qualification for Nozzle Inside Radius Section from the Outside Surface	1989 Edition with the 1989 Addenda	2004 Edition
N-552-1	Alternative Methods — Qualification for Nozzle Inside Radius Section from the Outside Surface	2004 Edition	2010 Edition with the 2011 Addenda
N-553	Inservice Eddy Current Surface Examination of Pressure Retaining Pipe Welds and Nozzle-to-Safe End Welds	1977 Edition	1995 Edition with the 1996 Addenda
N-553-1	Eddy Current Surface Examination	1977 Edition	1995 Edition with the 1996 Addenda
N-554	Alternative Requirements for Reconciliation of Replacement Items	1977 Edition	1995 Edition with the 1995 Addenda
N-554-1	Alternative Requirements for Reconciliation of Replacement Items	1977 Edition	1995 Edition with the 1996 Addenda
N-554-2	Alternative Requirements for Reconciliation of Replacement Items and Addition of New Systems	1977 Edition	1998 Edition
N-554-3	Alternative Requirements for Reconciliation of Replacement Items and Addition of New Systems	1977 Edition	2001 Edition with the 2002 Addenda

xxxiii NC – SUPP. 1

Code Case		Applicability	
No.	Title	From	Up to and Including
N-555	Use of Section II, V, and IX Code Cases	1977 Edition with the Summer 1978 Addenda	2001 Edition
N-556	Alternative Requirements for Verification of Acceptability of Replacements	1977 Edition	1992 Edition with the 1993 Addenda
N-557	In-Place Dry Annealing of a PWR Nuclear Reactor Vessel	1974 Edition with the Summer 1975 Addenda	1995 Edition
N-557-1	In-Place Dry Annealing of a PWR Nuclear Reactor Vessel	1974 Edition with the Summer 1975 Addenda	1995 Edition
N-560	Alternative Examination Requirements for Class 1, Category B-J Piping Welds	1974 Edition	2004 Edition
N-560-1	Alternative Examination Requirements for Class 1, Category B-J Piping Welds	1974 Edition	2004 Edition
N-560-2	Alternative Examination Requirements for Class 1, Category B-J Piping Welds	1977 Edition	2004 Edition
N-561	Alternative Requirements for Wall Thickness Restoration of Class 2 and High Energy Class 3 Carbon Steel Piping	1977 Edition	2004 Edition
N-561-1	Alternative Requirements for Wall Thickness Restoration of Class 2 and High Energy Class 3 Carbon Steel Piping	1977 Edition	2004 Edition with the 2005 Addenda
N-561-2	Alternative Requirements for Wall Thickness Restoration of Class 2 and High Energy Class 3 Carbon Steel Piping	1977 Edition	2015 Edition
N-562	Alternative Requirements for Wall Thickness Restoration of Class 3 Moderate-Energy Carbon Steel Piping	1977 Edition	2004 Edition
N-562-1	Alternative Requirements for Wall Thickness Restoration of Class 3 Moderate-Energy Carbon Steel Piping	1977 Edition	2004 Edition with the 2005 Addenda
N-562-2	Alternative Requirements for Wall Thickness Restoration of Class 3 Moderate-Energy Carbon Steel Piping	1977 Edition	2015 Edition
N-563	Grading of Examinations, IWA-2320	1986 Edition with the 1988 Addenda	1992 Edition
N-566	Corrective Action for Leakage Identified at Bolted Connections	1983 Edition with the Winter 1984 Addenda	2004 Edition
N-566-1	Corrective Action for Leakage Identified at Bolted Connections	1983 Edition with the Winter 1984 Addenda	2004 Edition
N-566-2	Corrective Action for Leakage Identified at Bolted Connections	1983 Edition with the Winter 1984 Addenda	2004 Edition with the 2006 Addenda
N-567	Alternative Requirements for Class 1, 2, and 3 Replacement Components	1977 Edition with the Summer 1978 Addenda	1998 Edition
N-567-1	Reconciliation Requirements for Class 1, 2, and 3 Replacement Components	1977 Edition with the Summer 1978 Addenda	1998 Edition
N-568	Alternative Examination Requirements for Welded Attachments	1974 Edition with the Summer 1975 Addenda	1989 Edition with the 1990 Addenda
N-569	Alternative Rules for Repair by Electrochemical Deposition of Class 1 and 2 Steam Generator Tubing	1977 Edition with the Summer 1978 Addenda	2004 Edition
N-569-1	Alternative Rules for Repair by Electrochemical Deposition of Class 1 and 2 Steam Generator Tubing	1977 Edition with the Summer 1978 Addenda	2017 Edition
N-573	Transfer of Procedure Qualification Records Between Owners	1977 Edition with the Summer 1978 Addenda	1995 Edition with the 1996 Addenda
N-574	NDE Personnel Recertification Frequency	1974 Edition with the Summer 1975 Addenda	1995 Edition with the 1996 Addenda
N-575	Alternative Examination Requirements for Full Penetration Nozzle-to-Vessel Welds in Reactor Vessels with Set-On Type Nozzles	1989 Edition	2017 Edition
N-576	Repair of Class 1 and 2 SB-163, UNS N06600 Steam Generator Tubing	1977 Edition with the Summer 1978 Addenda	1998 Edition with the 2000 Addenda
N-576-1	Repair of Classes 1 and 2 SB-163, UNS N06600 Steam Generator Tubing		2015 Edition [see Guideline for Cross-Referencing Section XI, Table 1, General Note (d)]
N-576-2	Repair of Classes 1 and 2 SB-163, UNS N06600 Steam Generator Tubing	1995 Edition with the 1996 Addenda	2017 Edition
N-577	Risk-Informed Requirements for Class 1, 2, and 3 Piping, Method A	1977 Edition	2004 Edition
N-577-1	Risk-Informed Requirements for Class 1, 2, or 3 Piping, Method A	1977 Edition	2004 Edition

NC - SUPP. 1 xxxiv

Code Case		Applicability	
No.	Title	From	Up to and Including
N-578	Risk-Informed Requirements for Class 1, 2, and 3 Piping, Method B	1977 Edition	2004 Edition
N-578-1	Risk-Informed Requirements for Class 1, 2, or 3 Piping, Method B	1977 Edition	2004 Edition
N-583	Annual Training Alternative	1986 Edition with the 1988 Addenda	1998 Edition
N-586	Alternative Additional Examination Requirements for Class 1, 2, and 3 Piping, Components, and Supports	1977 Edition with the Summer 1978 Addenda	2004 Edition
N-586-1	Alternative Additional Examination Requirements for Class 1, 2, and 3 Piping, Components, and Supports	1977 Edition with the Summer 1978 Addenda	2007 Edition with the 2008 Addenda
N-587	Alternative NDE Requirements for Repair/Replacement Activities	1977 Edition with the Summer 1978 Addenda	1995 Edition with the 1997 Addenda
N-588	Alternative to Reference Flaw Orientation of Appendix G for Circumferential Welds in Reactor Vessels	1986 Edition with the 1987 Addenda	1995 Edition with the 1997 Addenda
N-589	Class 3 Nonmetallic Cured-In-Place Piping	1977 Edition with the Summer 1978 Addenda	2004 Edition
N-589-1	Class 3 Nonmetallic Cured-In-Place Piping	1977 Edition with the Summer 1978 Addenda	2017 Edition
N-590	Alternative to the Requirements of Subsection IWE, Requirements for Class MC and Metallic Liners of Class CC Components of Light-Water Cooled Plants	1992 Edition	1995 Edition with the 1997 Addenda
N-591	Alternative to the Requirements of Subsection IWL, Requirements for Class CC Concrete Components of Light-Water Cooled Plants	1992 Edition	1995 Edition with the 1996 Addenda
N-592	ASNT Central Certification Program	1974 Edition	1998 Edition
N-593	Alternative Examination Requirements for Steam Generator Nozzle-to-Vessel Welds	1974 Edition	2004 Edition
N-593-1	Examination Requirements for Steam Generator Nozzle- to-Vessel Welds	1974 Edition	2015 Edition
N-593-2	Examination Requirements for Steam Generator Nozzle- to-Vessel Welds	1974 Edition	2017 Edition
N-597	Requirements for Analytical Evaluation of Pipe Wall Thinning	1974 Edition	2004 Edition
N-597-1	Requirements for Analytical Evaluation of Pipe Wall Thinning	1974 Edition	2004 Edition
N-597-2	Requirements for Analytical Evaluation of Pipe Wall Thinning	1974 Edition	2017 Edition
N-597-3	Evaluation of Pipe Wall Thinning	1974 Edition	2017 Edition
N-598	Alternative Requirements to Required Percentages of Examinations	1977 Edition	1995 Edition with the 1997 Addenda
N-599	Alternatives to Qualification of Nondestructive Examination Personnel for Inservice Inspection of Metal (Class MC) and Concrete (Class CC) Containments	1992 Edition with the 1992 Addenda	1995 Edition with the 1997 Addenda
N-600	Transfer of Welder, Welding Operator, Brazer, and Brazing Operator Qualifications Between Owners	1977 Edition with the Summer 1978 Addenda	2010 Edition with the 2011 Addenda
N-601	Extent and Frequency of VT-3 Visual Examination for Inservice Inspection of Metal Containments		1995 Edition with the 1997 Addenda
N-603	Alternative to the Requirements of IWL-2421, Sites With Two Plants	1989 Edition with the 1991 Addenda	1995 Edition with the 1996 Addenda
N-604	Alternative to Bolt Torque or Tension Test Requirements of Table IWE-2500-1, Category E-G, Item E8.20	1989 Edition	1995 Edition with the 1997 Addenda
N-605	Alternative to the Requirements of IWE-2500(c) for Augmented Examination of Surface Areas	1989 Edition	1995 Edition with the 1997 Addenda
N-606	Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique	1977 Edition with the Summer 1978 Addenda	2004 Edition
N-606-1	Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique for BWR CRD Housing/Stub Tube Repairs	1977 Edition with the Summer 1978 Addenda	2017 Edition
N-606-2	Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique for BWR CRD Housing/Stub Tube Repairs	1977 Edition with the Summer 1978 Addenda	2017 Edition
N-609	Alternative Requirements to Stress-Based Selection Criteria for Category B-J Welds	1977 Edition	2004 Edition with the 2005 Addenda

XXXV NC – SUPP. 1

Code Case		Appl	icability
No.	Title	From	Up to and Including
N-609-1	Alternative Requirements to Stress-Based Selection Criteria for Category B-J Welds	1977 Edition	2017 Edition [see Guideline for Cross-Referencing Section XI, Table 1, General Note (h)]
N-613	Ultrasonic Examination of Full Penetration Nozzles in Vessels, Examination Category B-D, Item No's. B3.10 and B3.90, Reactor Vessel-to-Nozzle Welds, Figures IWB-2500-7(a), (b), and (c)	1989 Edition with the 1989 Addenda	2007 Edition with the 2008 Addenda
N-613-1	Ultrasonic Examination of Full Penetration Nozzles in Vessels, Examination Category B-D, Item No's. B3.10 and B3.90, Reactor Nozzle-to-Vessel Welds, Figures IWB-2500-7(a), (b), and (c)	1989 Edition with the 1989 Addenda	2007 Edition with the 2008 Addenda
N-613-2	Ultrasonic Examination of Full Penetration Nozzles in Vessels, Examination Category B-D, Reactor Nozzle- to-Vessel Welds and Nozzle Inside Radius Section, Figures IWB-2500-7(a), (b), (c), and (d)	1989 Edition	2017 Edition
N-615	Ultrasonic Examination as a Surface Examination Method for Category B-F and B-J Piping Welds	1977 Edition with the Summer 1978 Addenda	1998 Edition with the 2000 Addenda
N-616	Alternative Requirements for VT-2 Visual Examination of Classes 1, 2, and 3 Insulated Pressure-Retaining Bolted Connections	1983 Edition with the Winter 1984 Addenda	2001 Edition with the 2002 Addenda
N-617	Alternative Examination Distribution Requirements for Table IWC-2500-1 Examination Category C-G, Pressure Retaining Welds in Pumps and Valves	1977 Edition with the Summer 1978 Addenda	1998 Edition with the 1999 Addenda
N-618	Use of a Reactor Pressure Vessel as a Transportation Containment System	1983 Edition	2015 Edition
N-619	Alternative Requirements for Nozzle Inner Radius Inspections for Class 1 Pressurizer and Steam Generator Nozzles	1977 Edition with the Summer 1978 Addenda	1998 Edition
N-622	Ultrasonic Examination of RPV and Piping, Bolts, and Studs	1989 Edition with the 1989 Addenda	2001 Edition
N-623	Deferral of Inspections of Shell-to-Flange and Head-to- Flange Welds of a Reactor Vessel	1977 Edition with the Summer 1978 Addenda	1998 Edition
N-624	Successive Inspections	1977 Edition with the Summer 1978 Addenda	2007 Edition
N-627	VT-1 Visual Examination in Lieu of Surface Examination for RPV Closure Nuts		1989 Edition
N-629	Use of Fracture Toughness Test Data to Establish Reference Temperature for Pressure Retaining Materials	1977 Edition with the Summer 1978 Addenda	2010 Edition with the 2011 Addenda
N-630	Alternatives to VT-1C and VT-3C Visual Examination for	1992 Edition with the 1992	1995 Edition with the
	Inservice Inspection of Concrete and VT-1 Visual Examination for Inservice Inspection of Anchorage Hardware and Surrounding Concrete for Concrete Containments	Addenda	1996 Addenda
N-638	Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique	1977 Edition with the Summer 1978 Addenda	2004 Edition
N-638-1 N-638-2	Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique Similar and Dissimilar Metal Welding Using Ambient	1977 Edition with the Summer 1978 Addenda 1980 Edition with the Winter	2007 Edition with the 2008 Addenda 2004 Edition
N-638-3	Temperature Machine GTAW Temper Bead Technique Similar and Dissimilar Metal Welding Using Ambient	1981 Addenda 1980 Edition with the Winter	2004 Edition
N-638-4	Temperature Machine GTAW Temper Bead Technique Similar and Dissimilar Metal Welding Using Ambient	1981 Addenda 1980 Edition with the Winter	2010 Edition with the 2011
	Temperature Machine GTAW Temper Bead Technique	1981 Addenda	Addenda [see Guideline for Cross-Referencing Section XI, Table 1, General Note (c)]
N-638-5	Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique	1980 Edition with the Winter 1981 Addenda	2010 Edition with the 2011 Addenda [see Guideline for Cross-Referencing Section XI, Table 1, General Note (c)]
N-638-6	Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique	1980 Edition with the Winter 1981 Addenda	

NC – SUPP. 1 xxxvi

ode Case		Appl	icability
No.	Title	From	Up to and Including
-638-7	Similar and Dissimilar Metal Welding Using Ambient	1980 Edition with the Winter	2017 Edition
	Temperature Machine GTAW Temper Bead Technique	1981 Addenda	
-638-8	Similar and Dissimilar Metal Welding Using Ambient	1980 Edition with the Winter	2017 Edition
	Temperature Machine GTAW Temper Bead Technique	1981 Addenda	
-638-9	Similar and Dissimilar Metal Welding Using Ambient	1980 Edition with the Winter	2017 Edition
	Temperature Machine GTAW Temper Bead Technique	1981 Addenda	
-638-10	Similar and Dissimilar Metal Welding Using Ambient	1980 Edition with the Winter	2017 Edition
	Temperature Machine GTAW Temper Bead Technique	1981 Addenda	
-639	Alternative Calibration Block Material	1986 Edition with the 1987 Addenda	2017 Edition
-640	Alternative Reference Fracture Toughness for Development of P-T Limit Curves	1986 Edition with the 1987 Addenda	1998 Edition
-641	Alternative Pressure-Temperature Relationship and Low	1977 Edition with the	2017 Edition
	Temperature Overpressure Protection System Requirements	Summer 1978 Addenda	
-643	Fatigue Crack Growth Rate Curves for Ferritic Steels in PWR	1977 Edition with the	2004 Edition
	Water Environment	Summer 1978 Addenda	
-643-1	Fatigue Crack Growth Rate Curves for Ferritic Steels in PWR	1977 Edition with the	2004 Edition
	Water Environment	Summer 1978 Addenda	
643-2	Fatigue Crack Growth Rate Curves for Ferritic Steels in PWR	1977 Edition with the	2017 Edition
	Water Environment	Summer 1978 Addenda	
-647	Alternative to Augmented Examination Requirements of	1977 Edition with the	1998 Edition with the
	IWE-2500	Summer 1978 Addenda	2000 Addenda
648	Alternative Requirements for Inner Radius Examinations of	1977 Edition with the	2004 Edition
	Class 1 Reactor Vessel Nozzles	Summer 1978 Addenda	
648-1	Alternative Requirements for Inner Radius Examinations of	1977 Edition with the	2017 Edition
	Class 1 Reactor Vessel Nozzles	Summer 1978 Addenda	
648-2	Alternative Requirements for Inner Radius Examinations of	1983 Edition with the Winter	2017 Edition
	Class 1 Reactor Vessel Nozzles	1983 Addenda	
649	Alternative Requirements for IWE-5240 Visual Examination	1989 Edition	1998 Edition with the
			2000 Addenda
651	Ferritic and Dissimilar Metal Welding Using SMAW Temper	1977 Edition with the	2017 Edition
	Bead Technique Without Removing the Weld Bead Crown of	Summer 1978 Addenda	
	the First Layer		
652	Alternative Requirements to Categories B-G-1, B-G-2, and C-D	1977 Edition	2001 Edition
	Bolting Examination Methods and Selection Criteria		
652-1	Alternative Requirements to Categories B-G-1, B-G-2, and C-D	1977 Edition	2001 Edition with the 2003
(50.0	Bolting Examination Methods and Selection Criteria	4055 F 1:::	Addenda
652-2	Alternative Requirements to Categories B-G-1, B-G-2, and C-D	1977 Edition	2010 Edition
(F2	Bolting Examination Methods and Selection Criteria	1000 Edition with the 1000	2004 Edition
653	Qualification Requirements for Full Structural Overlaid	1989 Edition with the 1989	2004 Edition
(F2 1	Wrought Austenitic Piping Welds	Addenda	2017 Edition
653-1	Qualification Requirements for Full Structural Overlaid	1989 Edition with the 1989 Addenda	2017 Edition
-653-2	Wrought Austenitic Piping Welds Qualification Requirements for Full Structural Overlaid	1989 Edition with the 1989	2017 Edition
-033-2	Wrought Austenitic Piping Welds	Addenda	2017 Edition
-654	Acceptance Criteria for Flaws in Ferritic Steel Components 4 in.		2017 Edition
.034	and Greater in Thickness	1974 Euldon	2017 Edition
-658	Qualification Requirements for Ultrasonic Examination of	1989 Edition with the 1989	2001 Edition
-030	Wrought Austenitic Piping Welds	Addenda	2001 Edition
-660	Risk-Informed Safety Classification for Use in Risk-Informed	1980 Edition with the Winter	2017 Edition
500	Repair/Replacement Activities	1981 Addenda	EUI/ Luition
-661	Alternative Requirements for Wall Thickness Restoration of	1977 Edition	2004 Edition with the 2005
501	Classes 2 and 3 Carbon Steel Piping for Raw Water Service	17// Luidon	Addenda
661-1	Alternative Requirements for Wall Thickness Restoration of	1977 Edition	2004 Edition with the 2005
001-1	Classes 2 and 3 Carbon Steel Piping for Raw Water Service	17// Luidon	Addenda
661-2		1977 Edition	
661-2	Alternative Requirements for Wall Thickness Restoration of	1977 Edition	2015 Edition
661 2	Classes 2 and 3 Carbon Steel Piping for Raw Water Service	1077 Edition	2015 Edition
-661-3	Alternative Requirements for Wall Thickness Restoration of	1977 Edition	2015 Edition
662	Classes 2 and 3 Carbon Steel Piping for Raw Water Service	1000 Edition with the Marie	2001 Edition with the 2000
-662	Alternative Repair/Replacement Requirements for Items	1980 Edition with the Winter	
	Classified in Accordance With Risk-Informed Processes	1981 Addenda	Addenda

xxxvii NC – SUPP. 1

Code Case		Applicability	
No.	Title	From	Up to and Including
N-662-1	Alternative Repair/Replacement Requirements for Items Classified in Accordance With Risk-Informed Processes	1995 Edition with the 1996 Addenda	2007 Edition with the 2009 Addenda
N-663	Alternative Requirements for Classes 1 and 2 Surface Examinations	1986 Edition	2010 Edition with the 2011 Addenda
N-664	Performance Demonstration Requirements for Examination of Unclad Reactor Pressure Vessel Welds, Excluding Flange Welds	1989 Edition with the 1989 Addenda	2001 Edition with the 2002 Addenda
N-665	Alternative Requirements for Angle Beam Measurements Using Refracted Longitudinal Wave Search Units	1983 Edition with the Winter 1985 Addenda	2001 Edition with the 2002 Addenda
N-666	Weld Overlay of Class 1, 2, and 3 Socket Welded Connections		2015 Edition [see Guideline for Cross-Referencing Section XI, Table 1, General Note (c)]
N-666-1	Weld Overlay of Class 1, 2, and 3 Socket Welded Connections	1995 Edition with the 1996 Addenda	2017 Edition [see Guideline for Cross-Referencing Section XI, Table 1, General Note (c)]
N-683	Method for Determining Maximum Allowable False Calls When Performing Single-Sided Access Performance Demonstration in Accordance With, Appendix VIII, Supplements 4 and 6	1989 Edition with the 1989 Addenda	2001 Edition with the 2002 Addenda
N-685	Lighting Requirements for Surface Examination	1998 Edition	2001 Edition with the 2003 Addenda
N-686	Alternative Requirements for Visual Examinations, VT-1, VT-2, and VT-3 $$	1989 Edition with the 1990 Addenda	1998 Edition with the 2000 Addenda
N-686-1	Alternative Requirements for Visual Examinations, VT-1, VT-2, and VT-3 $$	1989 Edition with the 1990 Addenda	2004 Edition
N-691	Application of Risk-Informed Insights to Increase the Inspection Interval for Pressurized Water Reactor Vessels	1986 Edition	2004 Edition with the 2006 Addenda
N-694	Evaluation Procedure and Acceptance Criteria for PWR Reactor Vessel Upper Head Penetration Nozzles	1983 Edition	2001 Edition with the 2003 Addenda
N-694-1	Evaluation Procedure and Acceptance Criteria for PWR Reactor Vessel Head Penetration Nozzles	1983 Edition	2001 Edition with the 2003 Addenda
N-694-2	Evaluation Procedure and Acceptance Criteria for PWR Reactor Vessel Head Penetration Nozzles	1983 Edition	2001 Edition with the 2003 Addenda
N-695	Qualification Requirements for Dissimilar Metal Piping Welds	1989 Edition with the 1989 Addenda	2001 Edition with the 2003 Addenda
N-695-1	Qualification Requirements for Dissimilar Metal Piping Welds	2001 Edition	2013 Edition
N-696	Qualification Requirements for Appendix VIII Piping Examinations Conducted From the Inside Surface	1989 Edition with the 1989 Addenda	2001 Edition with the 2003 Addenda
N-696-1	Qualification Requirements for Mandatory Appendix VIII Piping Examinations Conducted From the Inside Surface	2001 Edition	2017 Edition
N-697	Pressurized Water Reactor (PWR) Examination and Alternative Examination Requirements for Pressure Retaining Welds in Control Rod Drive and Instrument Nozzle Housings	1977 Edition	2001 Edition with the 2003 Addenda
N-700	Alternative Rules for Selection of Classes 1, 2, and 3 Vessel Welded Attachments for Examination	1995 Edition with the 1996 Addenda	2001 Edition with the 2003 Addenda
N-702	Alternative Requirements for Boiling Water Reactor (BWR) Nozzle Inner Radius and Nozzle-to-Shell Welds	1986 Edition	2015 Edition
N-702-1	Alternative Requirements for Boiling Water Reactor (BWR) Nozzle Inner Radius and Nozzle-to-Shell Welds	1986 Edition	2017 Edition
N-705	Evaluation Criteria for Temporary Acceptance of Degradation in Moderate Energy Class 2 or 3 Vessels and Tanks	1983 Edition with the Winter 1985 Addenda	2010 Edition with the 2011 Addenda
N-705-1	Evaluation Criteria for Temporary Acceptance of Degradation in Moderate Energy Class 2 or 3 Vessels and Tanks	1983 Edition with the Winter 1985 Addenda	2017 Edition
N-706	Alternative Examination Requirements to Table IWB-2500-1 and Table IWC-2500-1 for PWR Stainless Steel Residual and Regenerative Heat Exchangers	1977 Edition	2004 Edition with the 2005 Addenda
N-706-1	Alternative Examination Requirements to Table IWB-2500-1 and Table IWC-2500-1 for PWR Stainless Steel Residual and Regenerative Heat Exchangers	1977 Edition	2010 Edition with the 2011 Addenda
N-711	Alternative Examination Coverage Requirements for Examination Category B-F, B-J, C-F-1, C-F-2, and R-A Piping Welds	1989 Edition	2017 Edition

NC – SUPP. 1 xxxviii

Code Case		Applicability	
No.	Title	From	Up to and Including
N-711-1	Alternative Examination Coverage Requirements for Examination Category B-F, B-J, C-F-1, C-F-2, and R-A Piping Welds	1989 Edition	2017 Edition
N-712	Class 1 Socket Weld Examinations	1986 Edition	2010 Edition with the 2011 Addenda
N-713	Ultrasonic Examination in Lieu of Radiography	1986 Edition	2017 Edition
N-716	Alternative Piping Classification and Examination Requirements	1989 Edition	2004 Edition with the 2006 Addenda
N-716-1	Alternative Piping Classification and Examination Requirements	1995 Edition	2017 Edition
N-716-2	Alternative Classification and Examination Requirements	1995 Edition	2017 Edition
N-722	Additional Examinations for PWR Pressure Retaining Welds in Class 1 Components Fabricated With Alloy 600/82/182 Materials		2013 Edition
N-722-1	Additional Examinations for PWR Pressure Retaining Welds in Class 1 Components Fabricated With Alloy 600/82/182 Materials	1980 Edition	2017 Edition
N-722-2	Visual Examinations for PWR Pressure Retaining Welds in Class 1 Components Fabricated With Alloy 600/82/182 Materials		2017 Edition
N-729	Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds	1980 Edition	2004 Edition
N-729-1	Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds	1980 Edition	2004 Edition
N-729-2	Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds	1980 Edition	2004 Edition
N-729-3	Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds	2004 Edition	2015 Edition
N-729-4	Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds	2004 Edition	2017 Edition
N-729-5	Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds	2004 Edition	2017 Edition
N-729-6	Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds	2004 Edition	2017 Edition
N-729-7	Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds	2004 Edition	2017 Edition
N-729-8	Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds	2004 Edition	2017 Edition
N-730	Roll Expansion of Class 1 Control Rod Drive Bottom Head Penetrations in BWRs	1989 Edition	2015 Edition [see Guideline for Cross-Referencing Section XI, Table 1, General Note (e)]
N-730-1	Roll Expansion of Class 1 Control Rod Drive Bottom Head Penetrations in BWRs	1995 Edition with the 1996 Addenda	2017 Edition [see Guideline for Cross-Referencing Section XI, Table 1, General Note (e)]
N-731 N-733	Alternative Class 1 System Leakage Test Pressure Requirements Mitigation of Flaws in NPS 2 (DN 50) and Smaller Nozzles and Nozzle Partial Penetration Welds in Vessels and Piping by Use		2015 Edition 2017 Edition [see Guideline for Cross-Referencing Section XI,
N-735	of a Mechanical Connection Modification Successive Inspections of Class 1 and 2 Piping Welds	1995 Edition with the 1996	Table 1, General Note (f)] 2017 Edition
N-739	Alternative Qualification Requirements for Personnel Performing Class CC Concrete and Post-tensioning System Visual Examinations	Addenda 1992 Edition with the 1992 Addenda	2004 Edition with the 2006 Addenda

xxxix NC – SUPP. 1

Code Case		Арр	licability
No.	Title	From	Up to and Including
N-739-1	Alternative Qualification Requirements for Personnel Performing Class CC Concrete and Post-tensioning System Visual Examinations	1992 Edition with the 1992 Addenda	2004 Edition with the 2006 Addenda
N-740	Dissimilar Metal Weld Overlay for Repair of Class 1, 2, and 3 Items	1980 Edition with Winter 1981 Addenda	2004 Edition with the 2006 Addenda
N-740-1	Dissimilar Metal Weld Overlay for Repair or Mitigation of Class $1,2,\mathrm{and}3$ Items	1980 Edition with Winter 1981 Addenda	2004 Edition with the 2006 Addenda
N-740-2	Full Structural Dissimilar Metal Weld Overlay for Repair or Mitigation of Class 1, 2, and 3 Items	1986 Edition with the 1988 Addenda	2007 Edition with the 2008 Addenda
N-747	Reactor Vessel Head-to-Flange Weld Examination	1989 Edition	2015 Edition
N-749	Alternative Acceptance Criteria for Flaws in Ferritic Steel Components Operating in the Upper Shelf Temperature Range	1998 Edition with the 2000 Addenda	2017 Edition
N-751	Pressure Testing of Containment Penetration Piping	1989 Edition	2017 Edition
N-753	Vision Tests	1986 Edition with the 1988 Addenda	2004 Edition with the 2006 Addenda
N-754	Optimized Structural Dissimilar Metal Weld Overlay for Mitigation of PWR Class 1 Items	1986 Edition with the 1988 Addenda	2010 Edition
N-754-1	Optimized Structural Dissimilar Metal Weld Overlay for Mitigation of PWR Class 1 Items	1995 Edition with the 1996 Addenda	2017 Edition
N-755	Use of Polyethylene (PE) Plastic Pipe	1995 Edition with the 1995 Addenda	2015 Edition
N-755-1	Use of Polyethylene (PE) Plastic Pipe	1995 Edition with the 1995 Addenda	2015 Edition
N-762	Temper Bead Procedure Qualification Requirements for Repair/Replacement Activities Without Postweld Heat Treatment	1995 Edition with the 1995 Addenda	2010 Edition
N-762-1	Temper Bead Procedure Qualification Requirements for Repair/ Replacement Activities Without Postweld Heat Treatment	1995 Edition with the 1995 Addenda	2010 Edition
N-765	Alternative to Inspection Interval Scheduling Requirements of IWA-2430 $$	1989 Edition	2007 Edition with the 2008 Addenda
N-766	Nickel Alloy Reactor Coolant Inlay and Onlay for Mitigation of PWR Full Penetration Circumferential Nickel Alloy Dissimilar Metal Welds in Class 1 Items	1986 Edition with the 1988 Addenda	2017 Edition
N-766-1	Nickel Alloy Reactor Coolant Inlay and Onlay for Mitigation of PWR Full Penetration Circumferential Nickel Alloy Dissimilar Metal Welds in Class 1 Items	1995 Edition with the 1996 Addenda	2017 Edition
N-766-2	Nickel Alloy Reactor Coolant Inlay and Onlay for Mitigation of PWR Full Penetration Circumferential Nickel Alloy Dissimilar Metal Welds in Class 1 Items	1995 Edition with the 1996 Addenda	2017 Edition
N-766-3	Nickel Alloy Reactor Coolant Inlay and Onlay for Mitigation of PWR Full Penetration Circumferential Nickel Alloy Dissimilar Metal Welds in Class 1 Items	1995 Edition with the 1996 Addenda	2017 Edition
N-768	Alternative Volumetric Coverage Requirements for Ultrasonic Examination of Class 1 and 2 Pressure Vessel Weld Joints Greater Than 2 in. (50 mm) in Thickness	2001 Edition with the 2003 Addenda	2017 Edition
N-769	Roll Expansion of Class 1 In-Core Housing Bottom Head Penetrations in BWRs	1989 Edition	2015 Edition [see Guideline for Cross-Referencing Section XI, Table 1, General Note (e)]
N-769-1	Roll Expansion of Class 1 In-Core Housing Bottom Head Penetrations in BWRs	1989 Edition	2015 Edition [see Guideline for Cross-Referencing Section XI, Table 1, General Note (e)]
N-769-2	Roll Expansion of Class 1 In-Core Housing Bottom Head Penetrations in BWRs	1995 Edition with the 1996 Addenda	2017 Edition [see Guideline for Cross-Referencing Section XI, Table 1, General Note (e)]
N-770	Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated With UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of Listed Mitigation Activities	1989 Edition	2015 Edition

NC – SUPP. 1 xl

Code Case No.	Title	Арр	licability
		From	Up to and Including
N-770-1	Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated With UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of Listed Mitigation Activities	1989 Edition	2015 Edition
N-770-2	Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated With UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of Listed Mitigation Activities	1989 Edition	2017 Edition
N-770-3	Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated With UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of Listed Mitigation Activities	1989 Edition	2017 Edition
N-770-4	Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated With UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of Listed Mitigation Activities	1989 Edition	2017 Edition
N-770-5	Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated With UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of Listed Mitigation Activities	1989 Edition	2017 Edition
N-770-6	Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated With UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of Listed Mitigation Activities	1989 Edition	2017 Edition
N-771	Alternative Requirements for Additional Examinations of Class 2 or 3 Items	1992 Edition	2017 Edition
N-773	Alternative Qualification Criteria for Eddy Current Examinations of Piping Inside Surfaces	1995 Edition with the 1996 Addenda	2015 Edition
N-775	Alternative Requirements for Bolting Affected by Borated Water Leakage	1989 Edition	2010 Edition with the 2011 Addenda
N-776	Alternative to IWA-5244 Requirements for Buried Piping	1989 Edition	2010 Edition
N-778	Alternative Requirements for Preparation and Submittal of Plans, Schedules, and Preservice and Inservice Inspection Summary Reports	1989 Edition	2007 Edition with the 2009 Addenda
N-780	Alternative Requirements for Upgrade, Substitution, or Reconfiguration of Examination Equipment When Using Appendix VIII Qualified Ultrasonic Examination Systems	1989 Edition with the 1989 Addenda	2017 Edition
N-784	Experience Credit for Ultrasonic Examiner Certification	1995 Edition	2010 Edition
N-786	Alternative Requirements for Sleeve Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping	1995 Edition with the 1996 Addenda	2017 Edition
N-786-1	Alternative Requirements for Sleeve Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping	1995 Edition with the 1996 Addenda	2017 Edition
N-786-2	Alternative Requirements for Sleeve Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping	1995 Edition with the 1996 Addenda	2017 Edition
N-786-3	Alternative Requirements for Sleeve Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping	1995 Edition With the 1996 Addenda	2017 Edition
N-788	Third Party NDE Certification Organizations	1995 Edition	2017 Edition
N-788-1	Third Party NDE Certificate Organization	1995 Edition	2017 Edition
N-789	Alternative Requirements for Pad Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping for Raw Water Service	1995 Edition with the 1996 Addenda	2017 Edition
N-789-1	Alternative Requirements for Pad Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping for Raw Water Service	1995 Edition with the 1996 Addenda	2017 Edition

xli NC – SUPP. 1

Code Case		Applicability	
No.	Title	From	Up to and Including
N-789-2	Alternative Requirements for Pad Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping for Raw Water Service	1998 Edition	2017 Edition
N-789-3	Alternative Requirements for Pad Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping for Raw Water Service	1998 Edition	2017 Edition
N-795	Alternative Requirements for BWR Class 1 System Leakage Test Pressure Following Repair/Replacement Activities	1998 Edition with the 1999 Addenda	2015 Edition
N-798	Alternative Pressure Testing Requirements for Class 1 Piping Between the First and Second Vent, Drain, and Test Isolation Devices	1992 Edition with the 1993 Addenda	2015 Edition
N-799	Dissimilar Metal Welds Joining Vessel Nozzles to Components	1995 Edition	2010 Edition
N-800	Alternative Pressure Testing Requirements for Class 1 Piping Between the First and Second Injection Valves	1992 Edition with the 1993 Addenda	2015 Edition
N-803	Similar and Dissimilar Metal Welding Using Ambient Temperature Automatic or Machine Dry Underwater Laser Beam Welding (ULBW) Temper Bead Technique	1980 Edition	2010 Edition
N-805	Alternative to Class 1 Extended Boundary End of Interval or Class 2 System Leakage Testing of the Reactor Vessel Head Flange O-Ring Leak-Detection System	1992 Edition	2013 Edition
N-806	Evaluation of Metal Loss in Class 2 and 3 Metallic Piping Buried in a Back-Filled Trench	1995 Edition	2017 Edition
N-806-1	Analytical Evaluation of Metal Loss in Class 2 and 3 Metallic Piping Buried in a Back-Filled Trench	1995 Edition	2017 Edition
N-809	Reference Fatigue Crack Growth Rate Curves for Austenitic Stainless Steels in Pressurized Water Reactor Environments	1989 Edition with the 1989 Addenda	2017 Edition
N-813	Alternative Requirements for Preservice Volumetric and Surface Examination	1989 Edition	2013 Edition
N-823	Visual Examination	2001 Edition with the 2003 Addenda	2010 Edition with the 2011 Addenda
N-823-1	Visual Examination	2001 Edition with the 2003 Addenda	2013 Edition
N-824	Ultrasonic Examination of Cast Austenitic Piping Welds From the Outside Surface	2001 Edition	2013 Edition
N-825	Alternative Requirements for Examination of Control Rod Drive Housing Welds	1995 Edition with the 1996 Addenda	2013 Edition
N-826	Ultrasonic Examination of Full Penetration Vessel Weld Joints in Figures IWB-2500-1 Through IWB-2500-6	1995 Edition with the 1996 Addenda	2017 Edition
N-829	Austenitic Stainless Steel Cladding and Nickel Base Cladding Using Ambient Temperature Machine GTAW Temper Bead Technique	1995 Edition with the 1996 Addenda	2017 Edition
N-830	Direct Use of Master Fracture Toughness Curve for Pressure-Retaining Materials of Class 1 Vessels	1992 Edition	2017 Edition
N-831	Ultrasonic Examination in Lieu of Radiography for Welds in Ferritic Pipe	1995 Edition with the 1996 Addenda	2017 Edition
N-831-1	Ultrasonic Examination in Lieu of Radiography for Welds in Ferritic or Austenitic Pipe	1995 Edition with the 1996 Addenda	2017 Edition
N-838	Flaw Tolerance Evaluation of Cast Austenitic Stainless Steel Piping	1989 Edition with the 1989 Addenda	2017 Edition
N-839	Similar and Dissimilar Metal Welding Using Ambient Temperature SMAW Temper Bead Technique	1995 Edition with the 1996 Addenda	2017 Edition
N-840	Cladding Repair by Underwater Electrochemical Deposition in Class 1 and 2 Applications	1995 Edition with the 1996 Addenda	2017 Edition
N-842	Alternative Inspection Program for Longer Fuel Cycles	2007 Edition with the 2008 Addenda	2017 Edition
N-843	Alternative Pressure Testing Requirements Following Repair/ Replacement Activities for Class 1 Piping Between the First and Second Injection Isolation Valves	1980 Edition	2017 Edition
N-845	Qualification Requirements for Bolts and Studs	1995 Edition with the 1996 Addenda	2017 Edition
N-845-1	Qualification Requirements for Bolts and Studs	1995 Edition with the 1996 Addenda	2017 Edition

NC – SUPP. 1 xlii

Code Case		Арр	olicability
No.	Title	From	Up to and Including
N-847	Partial Excavation and Deposition of Weld Metal for Mitigation of Class 1 Items	1995 Edition with the 1996 Addenda	2017 Edition
N-848	Alternative Characterization Rules for Quasi-Laminar Flaws	1989 Edition with the 1989 Addenda	2017 Edition
N-848-1	Alternative Characterization Rules for Quasi-Laminar Flaws	1989 Edition with the 1989 Addenda	2017 Edition
N-849	In Situ VT-3 Examination of Removable Core Support Structures Without Removal	2007 Edition with the 2008 Addenda	2017 Edition
N-851	Use of Fracture Toughness Test Data to Establish Reference Temperature for Pressure Retaining Materials	1977 Edition with the Summer 1978 Addenda	2015 Edition
N-853	PWR Class 1 Primary Piping Alloy 600 Full Penetration Branch Connection Weld Metal Buildup for Material Susceptible to Primary Water Stress Corrosion Cracking	1995 Edition with the 1996 Addenda	2017 Edition
N-854	Alternative Pressure Testing Requirements for Class 2 and 3 Components Connected to the Class 1 Boundary	2001 Edition with the 2003 Addenda	2013 Edition
N-858	Alternative Volumetric Coverage Requirements for Ultrasonic Examination of Class 1 Nozzle-to-Vessel Welds	1998 Edition with the 2000 Edition	2017 Edition
N-864	Reactor Vessel Threads in Flange Examinations	1998 Edition	2017 Edition
N-865	Alternative Requirements for Pad Reinforcement of Class 2 and 3 Atmospheric Storage Tanks	1998 Edition	2017 Edition
N-867	Clarification of NDE Practical Examination Requirements	1995 Edition	2015 Edition
N-868	Third-Party NDE Certification for Non-U.S. Plant Sites	1995 Edition	2017 Edition
N-869	Evaluation Criteria for Temporary Acceptance of Flaws in Class 2 or 3 Piping	1995 Edition with the 1996 Addenda	2017 Edition
N-873	Examination Requirements for the Core Makeup Tanks	1998 Edition	2017 Edition
N-874	Temporary Acceptance of Leakage Through Brazed Joints of Class 3 Copper, Copper-Nickel, and Nickel-Copper Moderate Energy Piping	1995 Edition with the 1996 Addenda	2017 Edition
N-875	Alternative Inservice Inspection Requirements for Liquid-Metal Reactor Passive Components	1995 Edition	2017 Edition
N-876	Austenitic Stainless Steel Cladding and Nickel Base Cladding Using Ambient Temperature Automatic or Machine Dry Underwater Laser Beam Welding (ULBW) Temper Bead Technique	1995 Edition with the 1996 Addenda	2015 Edition
N-877	Alternative Characterization Rules for Multiple Subsurface Radially Oriented Planar Flaws	1998 Edition	2017 Edition
N-878	Alternative to QA Program Requirements of IWA-4142	1998 Edition with the 2000 Addenda	2017 Edition
N-880	Alternative to Procurement Requirements of IWA-4143 for Small Nonstandard Welded Fittings	1998 Edition with the 2000 Addenda	2017 Edition
N-882	$\label{lem:lemma:connections} Alternative Requirements for Attaching Nonstructural Electrical Connections to Class 2 and 3 Components$	1995 Edition with the 1996 Addenda	2017 Edition
N-885	Alternative Requirements for Table IWB-2500-1, Examination Category B-N-1, Interior of Reactor Vessel, Category B-N-2, Welded Core Support Structures and Interior Attachments to Reactor Vessels, Category B-N-3, Removable Core Support Structures		2017 Edition
N-889	Reference Stress Corrosion Crack Growth Rate Curves for Irradiated Austenitic Stainless Steels in Light Water Reactor Environments	1995 Edition	2017 Edition
N-890	Materials Exempted From G-2110(b) Requirement	1986 Edition with the 1987 Addenda	2017 Edition
N-892	Alternative Requirement for Form OAR-1, Owner's Activity Report, Completion Time	1995 Edition	2017 Edition
NOTES:			

NC - SUPP. 1 xliii

Applies to the 1974 Edition of Section V.
 Applies to the 1974 Edition with the Winter 1976 Addenda of Section V.
 Applies to the 1980 Edition of Section V.