

CONTROL OF HEAVY LOADS
AT VIRGIL C. SUMMER
NUCLEAR STATION UNIT 1

Revision 1

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TABLE 1 (Cont'd)

<u>Crane I.D.</u>	<u>Crane Type</u>	<u>Heavy Loads Handled and Lifting Device</u>	<u>Load Weight</u>	<u>Excluded From Further Concern</u>	<u>Figure No.</u>	<u>Location</u>
XCR-4	Reactor Building Polar Crane	a) CRDM Missile Shields	54,000 lbs	No	5, 6, & 7	552' el. Reactor Building
		b) Upper Internals and Internals Lifting Rig	92,000 lbs			
		c) Lower Internals and Internals Lifting Rig	268,000 lbs			
		d) Internals Lifting Rig	19,000 lbs			
		e) ISI Tool and Vendor-Supplied Lifting Device	20,000 lbs			
		f) RCP Internals	48,000 lbs			
		g) RCP Casing and Lifting Beam	52,000 lbs			
		h) RCP Motor	77,140 lbs			
		i) RV Studs, Nuts, and Washer Stand	8,500 lbs			
		j) Equipment Bridge	4,000 lbs			
		k) Reactor Vessel Head Assembly, Lifting Rig, and Sling	143,500 lbs			
		l) Reactor Vessel Head Lifting Rig	21,000 lbs			
XCR-17	Turbine Building Crane	General Electric Turbine Generator and Associates Power Plant Equipment	Less than or equal to max. capacity	Yes	7 & 11 (10)	463' el. Turbine Building
XCR-18	10-ton Cable Hoist and Trolley	Power Plant Equipment	Less than or equal to max. capacity	Yes	4 (2 & 3)	436' el. Auxiliary Building

2-Ton Manual Chain Hoist with Plain Trolley

The 2-ton manual chain hoists with plain trolleys XCR-23A and XCR-23B are located in the Auxiliary Building on elevation 412' at column lines J to N and 7.7. The hoists and trolleys are shown on Figure 3 along with its safe load paths.

Hoists XCR-23A and XCR-23B are supplied by the American Chain and Cable Company, and are 2-ton capacity hand operated chain hoists on plain trolleys. The hoists have a 26 foot lift and a forged steel shank hook.¹ The hoists and trolleys are designed in accordance with CMAA Specification 70 for Class A and C indoor service and ANSI B30.2, Chapter 2-2 to the extent to which they are applicable.

Hoists XCR-23A and XCR-23B are designated to service the Reactor Building Spray Protective Sump Isolation Valve Chambers XSM-4A and XSM-4B, and the Safety Injection Recirculation Sump Isolation Valve Protection Chambers XSM-5A and XSM-5B. Near hoist XCR-23B is a Motor Control Center XMC-1DAZY and an Air Handling Unit for Motor Control Center XAH-32-VL, both of which are necessary for the safe shutdown of the plant. Procedures are being developed and design modifications studied to minimize the chances of an inadvertent load drop causing damage to the adjacent protective chambers and the motor control center and accompanying air handling unit.

1. The lift as given is the maximum from the eye of the hook to the top of the beam; the actual lift as installed may be equal or less than this maximum.

8-Ton Manual Hand Chain Hoist with Geared Trolley

The 8-ton manual chain hoist with geared trolley XCR-24 is located in the Turbine Building on elevation 463' at column lines F and 4 to 5. The hoist and trolley are shown on Figure 11 along with their safe load paths.

Hoist XCR-24 is supplied by the American Chain and Cable Company, and is an 8 ton capacity hand operated chain hoist with a geared trolley. The hoist has a 20 foot lift and a forged steel shank hook.¹ The hoist and trolley are designed in accordance with CMAA Specification 70 for Class A and C indoor service and ANSI B30.2, Chapter 2-1 to the extent to which they are applicable.

Hoist XCR-24 is designated to service the Main Steam Stop Valves XVG-2809 A to D. Since the Turbine building contains no equipment necessary for the plant's safe shutdown or decay heat removal, this hoist can be excluded from further study or concern.

1. The lift as given is the maximum from the eye of the hook to the top of the beam; the actual lift as installed may be equal or less than this maximum.

1-1/2 Ton Hand Chain Hoist and Plain Trolley

The 1-1/2 ton hand chain hoist and plain trolley XCR-48 is located on elevation 412' of the Turbine Building at column lines B.8 to D and 12 above the Instrument and Service Air Compressors. The hoist is shown on Figure 9 along with the safe load path.

Hoist XCR-48 is supplied by the American Chain and Cable Company, and is a 1-1/2 ton capacity, manually operated, chain hoist on a plain trolley. The hoist has a 17 foot lift and a forged steel shank hook.¹ The hoist and trolley are designed in accordance with CMAA Specification 70 for Class A and C indoor service, and ANSI 30.2, Chapter 2-1 to the extent to which they apply.

Hoist and trolley XCR-48 service the Instrument and Service Air Compressor, XAC-3A and XAC-3B, which are not necessary for the plant's safe shutdown or decay heat removal. On this basis XCR-48 can be excluded from further study.

1. The lift as given is the maximum from the eye of the hook to the top of the beam; the actual lift as installed may be equal or less than this maximum.