

## CHILLED WATER CONNECTION CHECKLIST AND APPROVAL

Item	Notes	By	Date
Passivation			
Complete			
Flushing Complete			
Nitrate corrosion	Residual value:		
inhibitor added			
Pipe labeling			
complete and correct			
Pipe insulation in			
place			
Pipe hangers &			
anchors in place			
Pressure test	Beginning pressure:		
complete	Ending pressure:		
UNM inspection	Inspector Name:		
complete			
Underground piping			
warning tapes in			
place			
Metering in place and	Refer to I&C Connection Checklist		
operational	Totalizer Reading:		

Acceptance of Chilled Water Installation and Approval to Connect to UNM Utilities:

UNM Utilities Representative:

Name & Position:\_\_\_\_\_

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

Contractor Representative:

Name & Position:

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



### STEAM and CONDENSATE CONNECTION CHECKLIST AND APPROVAL

Item	Notes	By	Date
Pipe labeling complete and			
correct			
Pipe insulation in place			
Pipe hangers & anchors in place			
Pressure test complete	Beginning pressure: Ending pressure:		
UNM inspection complete	Inspector Name:		
Underground piping			
warning tapes in place			
Condensate Return Unit in			
place and properly			
operational			
PRV station properly set			
Steam traps in place and			
properly piped			
Relief piped to outside			
Metering in place and	Refer to I&C Connection Checklist		
operational	Totalizer reading:		

Acceptance of Steam and Condensate Installation and Approval to Connect to UNM Utilities:

UNM Utilities Representative:

Name & Position:

Signature & Date:

Contractor Representative:

Name & Position:\_\_\_\_\_

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



# **ELECTRICAL CONNECTION CHECKLIST AND APPROVAL**

### MANHOLES

Item	Notes	By	Date
MV Cable Tested	Testing performed by third party, must supply test results		
All metals parts to be grounded in MH			
T-Bodies shields grounded			
T-Bodies Torqued Connection	UNM must witness torque		
Cable Arms shall have Porcelain Insulators	Inspected by UNM personnel		
Cables properly labeled/identified	Panduit-MP350-C or similar label		
Fire Wrap cable			
Duct Seal conduits			
Clean area of any debris, trash, metal filings, etc.			
Final Inspection by UNM personnel			



### **MEDIUM VOLTAGE SWITCH**

Item	Notes	By	Date
Shell properly aligned to	Relay control boxes need to	Ť	
pad	open to 90 degrees		
Switch and Shell			
properly anchored			
Switch properly			
grounded			
Shell properly grounded	Shell to Switch		
Bushings			
Drains/Grounds			
properly installed			
Cables properly	Non-reversible crimp		
grounded			
A & B main feeder	Non-reversible crimp		
neutrals/grounds			
Cables properly	Panduit-MP350-C or similar		
labeled/identified			
Cables tested	Testing performed by 3 <sup>rd</sup>		
	party, must supply test		
Cobleo proporty	results T-Bodies and Loadbreak		
Cables properly connected to Switch	elbows connection and		
connected to Switch	torque witnessed by UNM		
	personnel		
Switch tested	Testing performed by 3 <sup>rd</sup>		
Switch tested	party, must supply test		
	results		
Protective relay tested	Testing performed by 3 <sup>rd</sup>		
	party, must supply test		
	results		
A & B circuits phasing	A-A, B-B, C-C must be in		
correct	phase, UNM to witness, must		
	have calibration certificate		
	with HV meter		
Conduits shall be Duct			
Sealed			
Clean area of any			
debris, trash, metal			
filings, etc.			
Outer Shell sealed with			
proper outdoor sealant			
to base of platform			



#### TRANSFORMER

Item	Notes	By	Date
Bushings			
Drains/Grounds properly installed			
Transformer properly	Primary & Secondary		
grounded	grounds included		
MV Cables properly grounded	Non-reversible crimp		
Cables properly labeled/identified	Panduit-MP350-C or similar		
Cables properly	label, primary and secondary		
connected to	connection witnessed by		
Transformer	UNM personnel, correct		
	hardware used on secondary		
	(Bellville Washers required)		
Secondary connections			
shall have torque markings			
Primary & Secondary	Testing performed by 3 <sup>rd</sup>		
Cables tested	party, must supply test results		
Transformer tested	Testing performed by 3 <sup>rd</sup>		
	party, must supply test		
Conduits must be Duct	results		
Sealed			
Clean area of any			
debris, trash, metal			
filings, etc.			
Outer Shell shall be			
sealed with proper outdoor sealant to base			
of platform			



### METERING

Item	Notes	By	Date	
All wiring & devices labeled				
Power supply power to be fused				
Voltage circuit shall have fuses, current circuit shall have shorting block				
All wiring shall be stranded AWG				
Current circuits wire to be #12 AWG or larger				
Meter voltage & current phasing correct				

### **INSPECTION CERTIFICATES**

Item	Notes	By	Date
Electrical Contractor inspection Passed	Attach letter from GC confirming, attach green tags		
UNM Inspection Passed	Primary and Secondary		

# **TESTING UPON ENERGIZATION**

Item	Notes	By	Date
Voltage readings	Taken at secondary of Transformer		
Phase Rotation	Taken at secondary of Transformer		
Write voltage and rotation information on secondary door of Transformer	Include date and contractor information		



#### **Voltage Readings & Rotation**

A-G:	B-G:	C-G:	Rotation:
A-B:	B-C:	C-A:	

Acceptance of Electrical Installation and Approval to Connect to UNM Utilities:

UNM Utilities Representative:

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

Contractor Representative:

Name & Position:

Signature & Date:



## DOMESTIC WATER CONNECTION CHECKLIST AND APPROVAL

Notes	Ву	Date
Check for clear distinction		
between fire protection and		
domestic water in mechanical room(s)		
Beginning pressure:		
Inspector Name:		
Defende IRC Composition Objection		
	Check for clear distinction between fire protection and domestic water in mechanical room(s)	Check for clear distinction between fire protection and domestic water in mechanical room(s) Beginning pressure: Ending pressure: Inspector Name:

Acceptance of Domestic Water Installation and Approval to Connect to UNM Utilities:

UNM Utilities Representative:

Name & Position:

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

Contractor Representative:

Name & Position:\_\_\_\_\_

Signature & Date:



## INSTRUMENTATION & CONTROL (I&C) CONNECTION CHECKLIST AND APPROVAL

### **Electrical**

Item	Notes	Ву	Date
CTs and PTs in place and operation verified			
Ratios clearly marked	CT ratio: PT ratio:		
Meter display safely accessible and visible			
BUMP readings match meter readings			
Meter information	Manufacturer: Model: S/N:		

### **Domestic Water**

Item	Notes	Ву	Date
Flow meter proper model			
Flow meter properly located	Check upstream/downstream diameters Check direction of flow and orientation		
Bypass and isolation provided for in-line flow meter			
Flow meter factory calibrated			
Flow meter configured for expected flow rates	Output in cubic ft/hr Expected max flow:		
Flow meter display clearly visible			
BUMP readings match flow meter readings			
Meter information	Manufacturer: Model: S/N:		



# Natural Gas

Item	Notes	Ву	Date
Flow meter proper model			
Flow meter properly located	Check upstream/downstream diameters Check direction of flow and orientation		
Bypass and isolation provided for in-line flow meter			
Flow meter factory calibrated			
Flow meter configured for expected flow rates	Output in cubic ft/hr Expected max flow:		
Flow meter display clearly visible			
BUMP readings match flow meter readings			
Meter information	Manufacturer: Model: S/N:		

# **Chilled Water**

Item	Notes	Ву	Date
Flow meter proper model			
Flow meter properly located	Check upstream/downstream diameters Check direction of flow and orientation		
Bypass and isolation provided for in-line flow meter			
Flow meter factory calibrated			
Flow meter configured for expected flow rates	Output in cubic ft/hr Expected max flow:		
Flow meter display clearly visible			
BUMP readings match flow meter readings			
Flow Meter information	Manufacturer: Model: S/N:		
Pressure transmitters proper model			
Pressure transmitters properly located	Check upstream/downstream diameters Check direction of flow and orientation		
Isolation valves provided for pressure transmitters			
Pressure transmitters factory calibrated			
Pressure transmitters configured for expected range	Low pressure: High pressure:		



Pressure transmitter displays		[
clearly visible		
BUMP readings match		
pressure transmitter readings		
Pressure Transmitter	Manufacturer:	
information	Model:	
	S/N:	
Temperature transmitters		
proper model		
Temperature transmitters	Check upstream/downstream diameters	
properly located	Check direction of flow and orientation	
	Check size of thermo-well	
Temperature transmitters		
factory calibrated		
Temperature transmitters	Low temperature:	
configured for expected range	High temperature:	
Temperature transmitter		
displays clearly visible		
BUMP readings match		
Temperature transmitter		
readings		
Temperature Transmitter	Manufacturer:	
information	Model:	
	S/N:	

# <u>Steam</u>

Item	Notes	Ву	Date
Flow meter proper model			
Flow meter properly located	Check upstream/downstream diameters Check direction of flow and orientation		
Bypass and isolation provided for in-line flow meter			
Flow meter factory calibrated			
Flow meter configured for expected flow rates	Output in cubic ft/hr Expected max flow:		
Flow meter display clearly visible			
BUMP readings match flow meter readings			
Flow Meter information	Manufacturer: Model: S/N:		
Pressure transmitters proper model			
Pressure transmitters properly located	Check upstream/downstream diameters Check direction of flow and orientation		
Isolation valves provided for pressure transmitters			



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Pressure transmitters factory			
calibrated			
Pressure transmitters	Low pressure:		
configured for expected range	High pressure:		
Pressure transmitter displays			
clearly visible			
BUMP readings match			
pressure transmitter readings			
Pressure Transmitter	Manufacturer:		
information	Model:		
	S/N:		
Temperature transmitters			
proper model			
Temperature transmitters	Check upstream/downstream diameters		
properly located	Check direction of flow and orientation		
	Check size of thermo-well		
Temperature transmitters			
factory calibrated			
Temperature transmitters	Low temperature:		
configured for expected range	High temperature:		
Temperature transmitter			
displays clearly visible			
BUMP readings match			
Temperature transmitter			
readings			
Temperature Transmitter	Manufacturer:		
information	Model:		
	S/N:		

Acceptance of I&C Installation and Approval to Connect to UNM

Utilities: UNM Utilities Representative:

Name & Position:\_\_\_\_\_

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

Contractor Representative:

Name & Position:\_\_\_\_\_

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