The Medical Center Company
Mechanical System Installation Requirements
Engineering Coordination Form 1

Instructions: This form is to be downloaded and initiated by Customer, completing as much information as possible in Section 1 prior to initial submission to MCCo. MCCo will review and complete Section 2 information based upon this initial Customer information and return the form to the Customer. Customer will then complete remaining items in Section 1 and send to MCCo for final review and adjustment of and/or completion of MCCo items. Upon final review and signature by MCCo's authorized representative, a copy of the form will be retained by MCCo and a copy will be returned to Customer and will become a record of the mechanical system coordination unless modified in writing by both parties. Customers should not proceed with work required to be coordinated with MCCo before completing the Customer input section of this form in sufficient time to allow coordination to take place, submitting the form to MCCo and receiving a completed and signed response from MCCo. Thank you in advance for your cooperation in documenting this important information. For a copy of this form in Microsoft Word format, please contact MCCo.

Please submit this form to:

The Medical Center Company
2250 Circle Drive
Cleveland, OH 44106-2664

Attention: Todd Gadawski
Phone: (216) 368-4256 x 15
E-mail: Todd@mcco.org

SECTION I - TO BE COMPLETED BY CUSTOMER:

Note: Complete as many items as possible prior to initial submission to MCCo for completion of Section 2. Final submission to MCCo should include completion of all items.

Customer: _____

Project title: _____

Project location: _____

Approximate building square footage: _____

Number of floors total: _____

Estimated building height above grade: _____

Estimated height above grade to top of highest CHW using device: _____

Approximate date MCCO utilities will be required: _____

Customer contact information:

Name & Title: _____

Phone: _____

E-mail: _____

Customer's Design Engineer Information:

Firm Name: _____

Firm Address: _____

_____

Contact Name: _____

Phone: _____

E-mail: _____

CUSTOMER STEAM & STEAM CONDENSATE COORDINATION INFORMATION:

Peak steam load to be provided by MCCo: _____ lb/hr

Estimated annual steam consumption: _____ lb/yr

Steam pressure to be used in building (after Customer reducing station): _____ psig

Note: See MSIR for piping and valving rating requirements.

Normal condensate return peak gpm returned _____ gpm

Note: Per MSIR, normal condensate peak gpm returned to MCCo should not exceed 200% of system peak steam flow rate. 200% peak flow rate = (2.0 x system peak lb/hr x 1 hr/60 min) / 8.346 lb/gal = gpm. Total should include only condensate pumps pumping back into MCCo return system. For duplex pump units where both pumps can operate indicate normal peak flow for only one pump operating.

Maximum condensate return peak gpm returned _____ gpm

Note: Maximum condensate peak gpm returned to MCCo is with both pumps in duplex sets running if both will be allowed to run simultaneously in controls.

Selected condensate return pump discharge pressure _____ psig

Note: Select pressure only after reviewing with MCCo. See also MSIR Installation Requirements for required throttling valves, check valves, gauges, etc. at condensate return pumps.

CUSTOMER CHILLED WATER COORDINATION INFORMATION:

Peak chilled water load to be accommodated by MCCo: _____ tons

Customer secondary system design entering CHWS temperature: _____ ^{o}F

Note: 45^{o}F minimum, 46^{o}F recommended

Customer secondary system design leaving CHWR temperature: _____ ^{o}F

Note: 61^{o}F minimum

Customer secondary pump information:

Number of pumps: _____

% of system capacity each: _____%

Flow rate each: _____gpm

Feet of head each: _____ft hd

Flow control: _____

(e.g. VFD, constant speed - ride curve, constant speed - constant volume, etc.)

Customer air device chilled water control valve type: _____

(e.g. 2-way, 3-way, none) Note: See MSIR for minimum 2-way valve shut off differential.

Customer digital controls manufacturer: _____

Note: See MSIR for feedback signals required to be provided by Customer to MCCo control system.

SECTION I INFORMATION SUBMITTED BY:

_____

Customer Contact's Signature Date of 1st Submission

_____

Customer Contact's Signature Date of 2nd Submission

In completing this form, the Customer and the Customer's Mechanical Design Engineer represent they have read and understands the requirements of "The Medical Center Company Mechanical System Installation Requirements" (MSIR), version _____, available at http://www.mcco.org/proceed.htm.

SECTION II - TO BE COMPLETED BY MCCo:

Note: Complete as many items as possible prior to return to Customer for completion of Section I.

MCCo Contact Information:

Name & Title: _____

Phone: _____

E-mail: _____

Approximate Date MCCO Utilities can be Supplied: _____

MCCo STEAM & STEAM CONDENSATE COORDINATION INFORMATION:

High End of Steam Pressure Range anticipated available at site: _____ psig

Low End of Steam Pressure Range anticipated available at site: _____ psig

Condensate Return Pressure Required at return header connection point: _____ psig

Steam piping size being brought into building by MCCo: _____ in.

Steam pumped condensate piping size being brought into building by MCCo: _____ in.

Will gravity steam condensate be brought into building by MCCo? _____

If yes, what size? _____ in. and what pressure? _____ psig

Size drip trap outlet connection upstream of meter to be routed to flash tank by customer:_____ in.

Note: this drip trap assembly is provided by MCCo.

Planned steam metering orifice size: _____ in.

Dedicated 120 volt metering control circuit required by Customer? _____

MCCo CHILLED WATER COORDINATION INFORMATION:

Chilled Water piping size being brought into building by MCCo: _____ in.

Primary system peak flow rate by MCCo for Customer tons and DT: _____ gpm

Note: Primary flow = (tons x 24)/primary DT, where primary DT = Customer return temperature - MCCo primary CHW supply temperature

Primary system building pressure drop anticipated by MCCo (from building entry point to building exit point on primary side only): _____ psig

Note: Normal allowance per MSIR is 5 psig.

Estimated control valve design shut-off differential pressure requirement: _____ psig

Note: This value should be used in the Customer's temperature control valve specification for the difference between the chilled water supply and return line pressures which the control valve actuator is anticipated to have to overcome to close completely.

Chilled water meter make, size and model:_____

Dedicated 120 volt metering control circuit required by Customer? _____

Date Section I Customer's information received by MCCo: _____

Date Section I Customer's resubmitted information received by MCCo: _____

SECTION II MCCo INFORMATION PREPARED BY:

_____

MCCo Authorized Representative's Signature Date of 1st Response

_____

MCCo Authorized Representative's Signature Date of Final Response

END OF MECHANICAL SYSTEM INSTALLATION REQUIREMENTS - ENGINEERING FORM 1