

REGENERATION
 1) DEPRESSURIZE VACUUM
 2) HOLD MOMENTARILY AT VACUUM
 3) SWEEP 200 PROOF PURGE VAPOR TO AID WATER REMOVAL
 4) REPRESSURIZE TO PRESSURE
 SEE CONDITIONS FOR THREE CASES

PFD LEGEND

Pounds/hr FLOW RATE: Divide by 2.2046 for Kg/hr
 (PSIA) PRESSURE: Divide by 14.223 for Kg/cm²
 (Deg F) TEMPERATURE: $(T-32)/1.8 = \text{deg C}$
 (mm Hg) ABSOLUTE PRESSURE (mm Hg)

NOTE:
 1.) ALL PRESSURE TAGS/BUBBLES REFERENCED AT GRADE

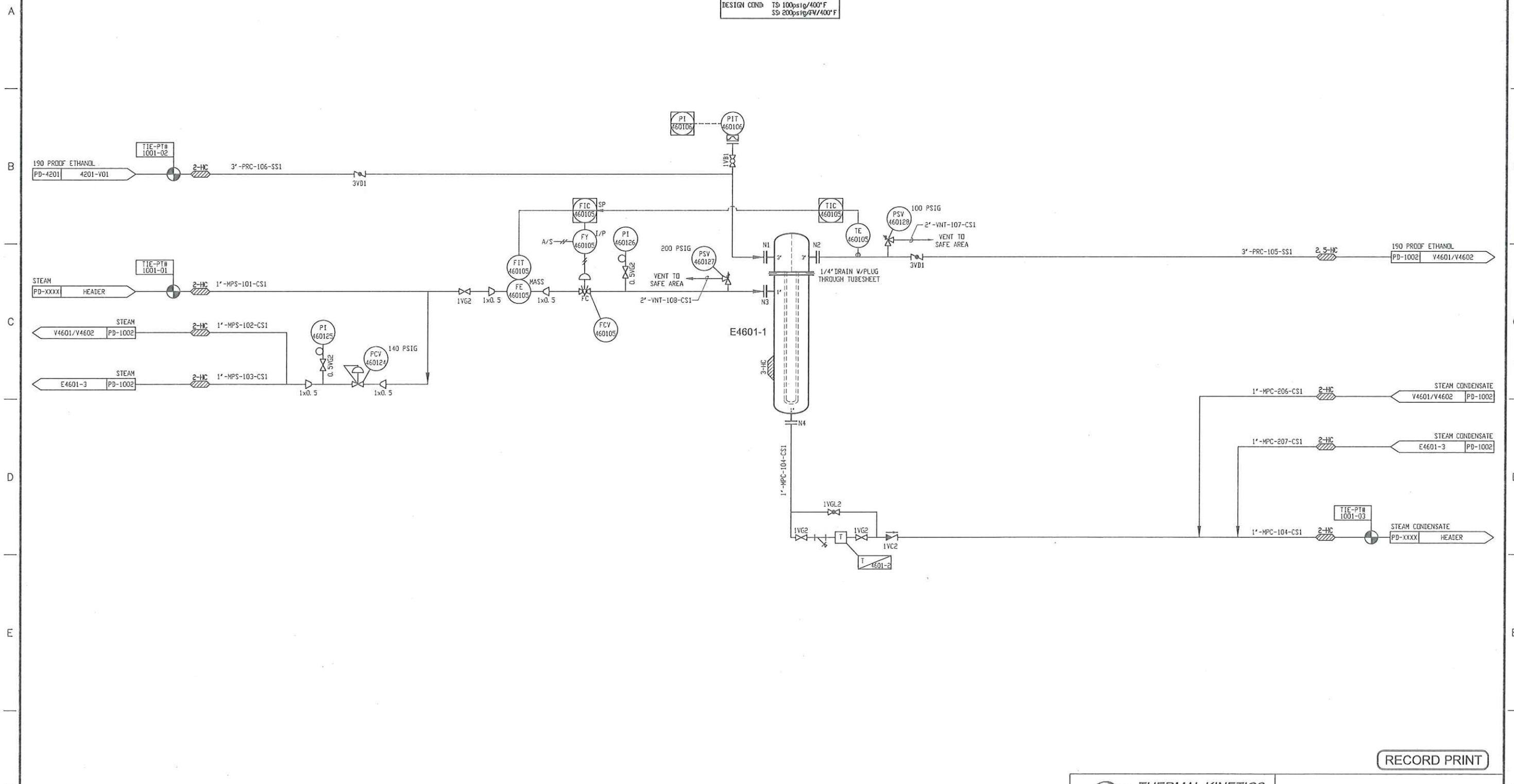
THERMAL KINETICS Engineering, PLLC
 2420 Sweet Home Rd. Amherst, NY 14228 (716) 691-3291

PROCESS FLOW DIAGRAM DEHYDRATION SYSTEM

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1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9



E4601-1
 190 PROOF SUPERHEATER
 SIZE: 8" ϕ x 48'
 CAPACITY: 31.2 sq. ft.
 MATERIAL: TS: 304L SS
 SS: CS
 DESIGN COND: TS: 100psig/400°F
 SS: 200psig/4M/400°F

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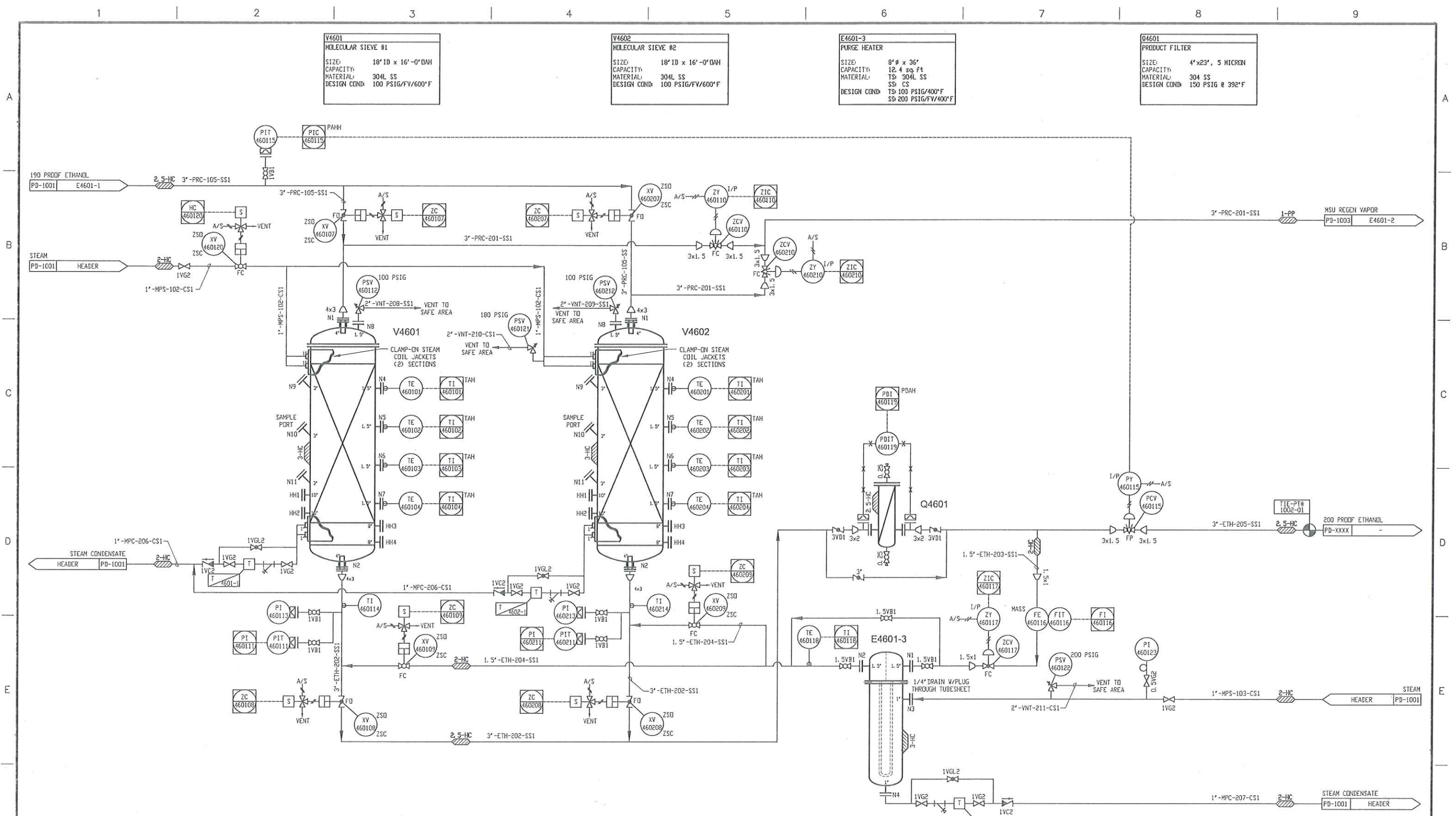
PIPING & INSTRUMENTATION DIAGRAM
 DEHYDRATION SYSTEM

| REV | DATE | ISSUED | BY | CHK'D BY |
|-----|----------|---------|-----|----------|
| 00 | AS-BUILT | 11-9-09 | JML | CJB |
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 1 of 1
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V4602
MOLECULAR SIEVE #2
SIZE: 18' ID x 16'-0" DAH
CAPACITY: 304L SS
MATERIAL: 304L SS
DESIGN COND: 100 PSIG/FV/600°F

E4601-3
PURGE HEATER
SIZE: 8' 9" x 36'
CAPACITY: 12.4 sq. ft.
MATERIAL: 304L SS
SS CS
DESIGN COND: TS 100 PSIG/400°F
SS 200 PSIG/FV/400°F

Q4601
PRODUCT FILTER
SIZE: 4' x 23', 5 MICRON
CAPACITY: 304 SS
MATERIAL: 304 SS
DESIGN COND: 150 PSIG @ 392°F

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E4601-2
 REGEN VAPOR CONDENSER
 SIZE: 13' Ø x 60' T/T
 CAPACITY: 100.6 sq. ft
 MATERIAL: TS: 304L SS
 SS: CS
 DESIGN COND: TS: 100 PSIG/400°F
 SS: 100 PSIG/200°F

V4603
 REGEN CONDENSATE TANK
 SIZE: 18' ØD x 4' SS
 CAPACITY: 55 GAL
 MATERIAL: 304L SS
 DESIGN COND: 100PSIG/FV/300°F

P4603-1
 REGEN PUMP
 SIZE: CAPACITY: 2.5 GPM @ 255 FT
 MATERIAL: TEFZEL
 DESIGN COND: 200 PSIG/150°F
 PULSAFEEDER ECLIPSE E25FLEF

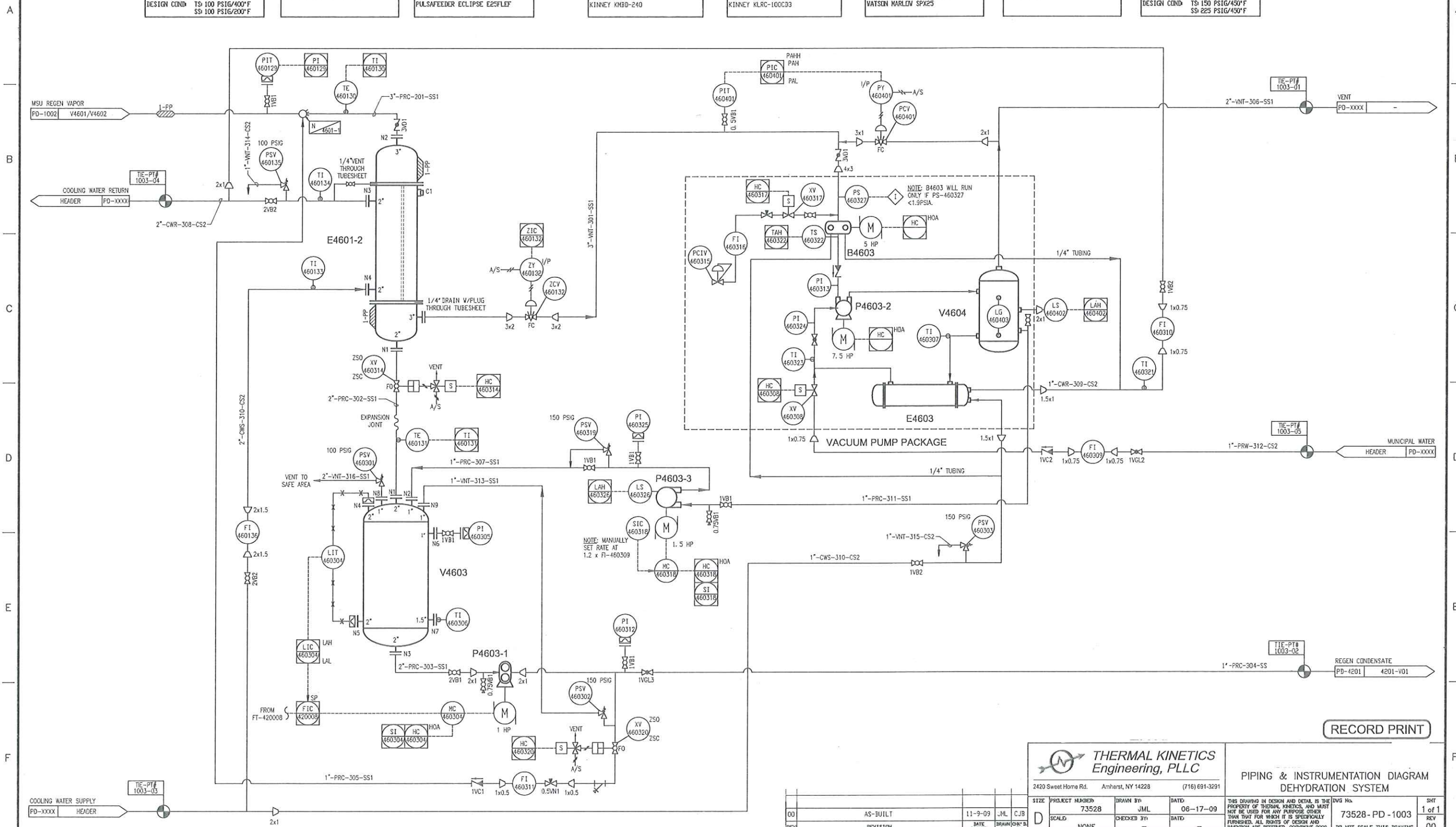
B4603
 VACUUM BOOSTER
 CAPACITY: 125 ICFM @ 25mmHg, 95°F
 MATERIAL: DUCTILE IRON
 DESIGN COND: -
 KINNEY KMBD-240

P4603-2
 LIQUID RING VACUUM PUMP
 CAPACITY: 125 ICFM @ 25mmHg, 95°F
 MATERIAL: 316SS
 DESIGN COND: -
 KINNEY KLRC-100C03

P4603-3
 SEAL FLUID OVERFLOW PUMP
 SIZE: CAPACITY: 2.5 GPM @ 150 FT
 MATERIAL: EPDM HOSE
 DESIGN COND: 232PSIG/175°F
 WATSON MARLOW SPX25

V4604
 SEPARATOR
 SIZE: 12' ØD x 1'-8" SS
 CAPACITY: 10 GAL
 MATERIAL: 316SS
 DESIGN COND: -

E4603
 SEAL FLUID COOLER
 SIZE: 5' Ø x 24'
 CAPACITY: 15.7 sq. ft
 MATERIAL: TS: 316SS/CI BONNET
 SS: 316SS
 DESIGN COND: TS: 150 PSIG/450°F
 SS: 225 PSIG/450°F



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