

**PROCESSING IN STEAM IN STILL RETORTS**  
**(Retort Survey)**

**INSTRUCTIONS**

Complete the question blocks below. Narrative responses to each item can be entered in the item's "comments" area or where otherwise prompted. Draw a diagram of the retort or obtain one from the firm and attach it to the EIR as an exhibit. Report all pipe sizes as inside diameter (ID). Cross-sectional area =  $3.14r^2$  ( $r = \frac{1}{2}$  diameter).

If problems are found with the firm's retort equipment or processing system, refer the reader to the narrative Turbo EIR under "Objectionable Conditions and Management's Response," and include a narrative explanation of specific problems and evidence under the subheading "Supporting Evidence and Relevance." Submit the completed form as an EIR attachment.

**RETORT DESCRIPTION**

RETORT NO.	TYPE OF RETORT	LENGTH OR HEIGHT	DIAMETER
	Vertical <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical (Crateless) <input type="checkbox"/>		

FOR VERTICAL RETORTS, BOTTOM CRATE SUPPORTS ARE PRESENT. .... Yes  No

*(SHALL REQUIREMENT)*

COMMENTS:

ARE BAFFLE PLATES PRESENT IN THE BOTTOM OF RETORT? ..... Yes  No

*(SHALL NOT BE USED IN THE BOTTOM OF STEAM STILL RETORTS (113.40(a)(6)) – BAFFLE PLATES ARE UNDESIRABLE IN THE BOTTOM OF STILL STEAM RETORTS BECAUSE THEY CAN IMPEDE THE FLOW OF STEAM FROM STEAM INLETS OR PERFORATED STEAM DISTRIBUTOR PIPES.)*

COMMENTS:

ARE THERE ANY PROTRUSIONS INSIDE THE RETORT OR THE RETORT DOOR CASING WHICH COULD DAMAGE CONTAINERS DURING LOADING/UNLOADING OF CRATES? ..... Yes  No

COMMENTS:

**COMPUTER CONTROLS**

DOES A COMPUTER CONTROL ANY OF THE RETORT FUNCTIONS? ..... Yes  No

COMMENTS:

DOES THE FIRM HAVE DOCUMENTATION ON HAND THAT INDICATES THAT THE COMPUTER SYSTEM HAS BEEN VALIDATED?

Yes  No

EXPLAIN:

IS RECORD KEEPING PART OF THE COMPUTER FUNCTION? ..... Yes  No

IF YES, DOES THE RECORD KEEPING COMPLY WITH 21CFR PART 11? ..... Yes  No

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COMMENTS:

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**INDICATING MERCURY-IN-GLASS THERMOMETER (113.40(a)(1))**

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IS THE RETORT EQUIPPED WITH AT LEAST ONE MERCURY-IN-GLASS (MIG) THERMOMETER? ..... Yes  No   
(SHALL REQUIREMENT)

COMMENTS:

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IS THE RETORT EQUIPPED WITH ANOTHER TYPE OF TEMPERATURE INDICATOR DEVICE? ..... Yes  No   
IF SO, DESCRIBE THE INDICATOR:

ARE SCALE DIVISIONS EASILY READABLE TO 1°F (.5°C)? ..... Yes  No   
(SHALL REQUIREMENT)

COMMENTS:

NO. OF DEGREES F OR C/IN. OF GRADUATED SCALE: \_\_\_\_\_. (TEMP. RANGE MUST NOT EXCEED 17°F(8°C) PER INCH (4°C/CM) OF GRADUATED SCALE. ALSO, SEE LACF GUIDE, P. 14.)

DATE LAST TESTED FOR ACCURACY:

(THERMOMETERS **SHALL** BE TESTED FOR ACCURACY AGAINST A KNOWN ACCURATE STANDARD THERMOMETER UPON INSTALLATION AND AT LEAST ONCE A YEAR THEREAFTER; RECORDS OF ACCURACY CHECKS THAT SPECIFY DATE, STANDARD USED, METHOD USED, AND PERSON PERFORMING THE TEST **SHOULD** BE MAINTAINED. EACH THERMOMETER SHOULD HAVE A TAG, SEAL, OR OTHER MEANS OF IDENTITY THAT INCLUDES THE DATE IT WAS LAST TESTED FOR ACCURACY.)

COMMENTS:

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STANDARD USED FOR THE TEST:

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NAME AND TITLE OF PERSON WHO PERFORMED TEST:

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IS THE LAST TEST DATE IDENTIFIED ON THE THERMOMETER? ..... Yes  No

WERE CALIBRATING TEST RECORDS PREPARED/MAINTAINED? ..... Yes  No   
(SHOULD REQUIREMENT)

COMMENTS:

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DESCRIBE THE FIRM'S ACTIONS REGARDING MIG THERMOMETERS THAT WERE OUT OF CALIBRATION:

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IS THE MERCURY UNDIVIDED? ..... Yes  No   
(A THERMOMETER THAT HAS A DIVIDED MERCURY COLUMN OR THAT CANNOT BE ADJUSTED TO THE STANDARD **SHALL** BE REPAIRED OR REPLACED.)

COMMENTS:

WHEN MIG THERMOMETERS ARE FOUND TO BE PROVIDING READINGS ABOVE THE ACTUAL TEMPERATURES, DOES THE FIRM EVALUATE PRODUCTS PRODUCED USING THOSE THERMOMETERS? ..... Yes  No

DESCRIBE THE FIRM'S PROCEDURES:

IS THE THERMOMETER LOCATED WHERE IT IS EASY TO READ ACCURATELY? ..... Yes  No

(SHALL REQUIREMENT)

COMMENTS:

THE SENSOR BULB IS LOCATED IN THE ..... Retort Shell , or External Well

COMMENTS:

DIAMETER OF OPENING FROM RETORT TO EXTERNAL WELL: \_\_\_\_\_ BLEEDER SIZE: \_\_\_\_\_

(DIA. MUST BE AT LEAST 3/4-IN.)

(1/16-IN. MINIMUM)

COMMENTS:

DOES THE BLEEDER EMIT STEAM CONTINUOUSLY DURING PROCESSING? ..... Yes  No

IF NO, EXPLAIN (SHALL REQUIREMENT):

IF A MUFFLER IS USED ON BLEEDER(S), WHAT EVIDENCE DOES THE FIRM HAVE THAT IT DOES NOT RESTRICT FREE FLOW OF STEAM? (113.87(g))

IS THE MERCURY THERMOMETER USED AS THE REFERENCED INSTRUMENT DURING PROCESSING? ..... Yes  No

(SHALL REQUIREMENT)

COMMENTS:

**TEMPERATURE RECORDING DEVICE (113.40(a)(2))**

IS THE RETORT EQUIPPED WITH A TEMPERATURE RECORDING DEVICE? ..... Yes  No

TYPE OF TEMPERATURE RECORDER ..... Round Circular Chart  Strip Chart  Other

IF OTHER, DESCRIBE:

DO THE CHART SPECIFICATIONS MEET THE REQUIREMENTS OF PART 113? ..... Yes  No

(GRADUATIONS ON THE TEMPERATURE-RECORDING DEVICE SHALL NOT EXCEED 2°F (1°C) WITHIN A RANGE OF 10°F (5.5°C) OF THE PROCESSING TEMPERATURE. EACH CHART SHALL HAVE A WORKING SCALE OF NOT MORE THAN 55°F/IN (12°C/CM) WITHIN A RANGE OF 20°F (10°C) OF THE PROCESSING TEMPERATURE. ALSO, SEE P. 14 OF LACF FIELD GUIDE-PART 2.)

COMMENTS:

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IS THE TEMPERATURE CHART ADJUSTED TO AGREE AS NEARLY AS POSSIBLE WITH BUT NOT HIGHER THAN THE KNOWN ACCURATE MERCURY-IN-GLASS THERMOMETER DURING THE PROCESSING PERIOD? ..... Yes  No   
(SHALL REQUIREMENT – NOTE ANY DIFFERENCE BETWEEN THE RECORDING THERMOMETER AND THE MERCURY-IN-GLASS THERMOMETER AND WHICH READING IS HIGHER.)

COMMENTS:

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IS THERE A MEANS FOR PREVENTING UNAUTHORIZED ADJUSTMENTS? ..... Yes  No   
(A MEANS OF PREVENTING UNAUTHORIZED CHANGES IN ADJUSTMENTS **SHALL** BE PROVIDED. A LOCK OR NOTICE FROM MANAGEMENT STATING “ONLY AUTHORIZED PERSONS ARE PERMITTED TO MAKE ADJUSTMENTS” & POSTED AT OR NEAR THE RECORDING DEVICE IS A SATISFACTORY MEANS FOR PREVENTING UNAUTHORIZED CHANGES.)

COMMENTS:

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IS THE CHART DRIVE TIMING MECHANISM ACCURATE? ..... Yes  No   
IF NO, EXPLAIN:

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IS THE RECORDER COMBINED WITH A STEAM CONTROLLER TO FUNCTION AS A RECORDING/CONTROLLING INSTRUMENT? ..... Yes  No   
COMMENTS:

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THE TEMPERATURE SENSING BULB IS INSTALLED IN THE ..... Retort Shell , or External Well   
(THE TEMPERATURE-RECORDER BULB **SHALL** BE INSTALLED EITHER WITHIN THE RETORT SHELL OR IN A WELL ATTACHED TO THE SHELL.)  
COMMENTS:

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DOES THE TEMPERATURE RECORDER BULB WELL HAVE A 1/16-IN. DIA. OR LARGER BLEEDER THAT EMITS STEAM CONTINUOUSLY DURING THE PROCESSING PERIOD? ..... Yes  No  N/A   
(SHALL REQUIREMENT)  
COMMENTS:

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IF A MUFFLER IS USED ON THE BLEEDER, WHAT EVIDENCE DOES THE FIRM HAVE THAT IT DOES NOT RESTRICT THE FLOW OF STEAM? (113.87(g))  
(SHOULD REQUIREMENT)  
COMMENTS:

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**PRESSURE GAGE (113.40(a)(3))**

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IF A PRESSURE GAGE IS PRESENT, IS IT GRADUATED IN DIVISIONS OF 2 LBS. OR LESS? ..... Yes  No   
(SHOULD REQUIREMENT)  
COMMENTS:

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**AUTOMATIC STEAM CONTROLLER (113.40(a)(4))**

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IS THE STEAM CONTROLLER AUTOMATIC? ..... Yes  No

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(EACH RETORT **SHALL** BE EQUIPPED WITH AN AUTOMATIC STEAM CONTROLLER TO MAINTAIN THE RETORT TEMPERATURE.)

COMMENTS:

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IS THE STEAM CONTROLLER TEMPERATURE OR PRESSURE ACTUATED? ..... Temp  Press   
(THE STEAM CONTROLLER MAY BE ACTUATED BY A TEMPERATURE SENSOR POSITIONED NEAR THE MERCURY-IN-GLASS THERMOMETER; A STEAM CONTROLLER ACTIVATED BY THE STEAM PRESSURE OF THE RETORT IS ACCEPTABLE IF IT IS CAREFULLY MAINTAINED SO IT OPERATES SATISFACTORILY.)

COMMENTS:

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REPORT THE **MANUFACTURER, MODEL, TYPE AND SIZE** OF THE AUTOMATIC STEAM CONTROL VALVE:

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IF THE TEMPERATURE (STEAM) CONTROLLER IS AIR OPERATED, DOES THE SYSTEM HAVE AN ADEQUATE FILTER TO ASSURE A SUPPLY OF CLEAN, DRY AIR? ..... Yes  No   
(AIR OPERATED TEMPERATURE CONTROLLERS SHOULD HAVE ADEQUATE FILTER SYSTEMS TO ASSURE A SUPPLY OF CLEAN, DRY AIR.)

COMMENTS:

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**STEAM INLETS (113.40(a)(5))**

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IF THE RETORT IS OVER 30 FT. LONG, ARE THERE 2 STEAM INLETS? ..... Yes  No   
IF NO, HOW MANY? \_\_\_\_\_  
(**SHOULD** REQUIREMENT)

COMMENTS:

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ARE STEAM INLETS LOCATED OPPOSITE THE VENT? ..... Yes  No   
IF NO, EXPLAIN.

(STEAM SHALL ENTER THE PORTION OF THE RETORT OPPOSITE THE VENT.)

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INSIDE DIAMETER(S) OF SMALLEST RESTRICTION IN THE STEAM INLET LINES (INCLUDE THE TEMPERATURE (STEAM) CONTROL VALVE AS A RESTRICTION):

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CALCULATED CROSS SECTIONAL AREA OF SMALLEST RESTRICTION = \_\_\_\_\_  
( $A = 3.14(r)^2$ )

COMMENTS:

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**STEAM SPREADER (113.40(a)(7))**

DESCRIBE SHAPE AND DIMENSIONS:

(NOTE – STEAM SPREADERS ARE REQUIRED FOR HORIZONTAL STILL RETORTS. THE SPREADER PIPE SHOULD BE PERFORATED ALONG THE TOP 90° OF THE PIPE. VERTICAL STILL RETORTS ARE NOT REQUIRED TO HAVE STEAM SPREADERS. HOWEVER, IF THEY HAVE THEM, THEY SHOULD BE PERFORATED ALONG THE CENTER LINE OF THE PIPE FACING THE INTERIOR OF THE RETORT OR ALONG THE SIDES OF THE PIPE.)

COMMENTS:

NUMBER OF PERFORATIONS: \_\_\_\_\_ DIAMETER OF PERFORATIONS: \_\_\_\_\_

LOCATION OF PERFORATIONS: \_\_\_\_\_

COMMENTS:

ARE PERFORATIONS CLEARLY OPEN? ..... Yes  No

IF NO, EXPLAIN:

THE CALCULATED TOTAL CROSS-SECTIONAL AREA OF THE PERFORATIONS: \_\_\_\_\_

(NO. OF PERFORATIONS) X (3.14) X (r<sup>2</sup>)

IS THIS AREA 1.5 TO 2 TIMES THE TOTAL CROSS SECTIONAL AREA OF THE SMALLEST RESTRICTIONS IN THE STEAM INLET LINE? ..... Yes  No

(THE NUMBER OF PERFORATIONS **SHOULD** BE SUCH THAT THE TOTAL CROSS-SECTIONAL AREA OF THE PERFORATIONS IS EQUAL TO 1.5 TO 2 TIMES THE CROSS-SECTIONAL AREA OF THE SMALLEST RESTRICTION IN THE STEAM INLET LINE.)

IF THE TOTAL CROSS SECTIONAL AREA OF ALL PERFORATIONS IN THE STEAM SPREADER PIPE IS NOT 1-1/2 TO 2 TIMES THE CROSS-SECTIONAL AREA OF THE SMALLEST RESTRICTION IN THE STEAM INLET LINE, DOES THE FIRM HAVE DOCUMENTATION OF A TEMPERATURE DISTRIBUTION STUDY SUPPORTING THE EXISTING NUMBER AND SIZE OF PERFORATIONS IN THE SPREADER PIPE? ..... Yes  No

COMMENTS:

IS THE STEAM SPREADER IN GOOD REPAIR? (FOR EXAMPLE, HOLES HAVE NOT BEEN PLUGGED BY RUST OR SEDIMENT, OR ENLARGED BY WEAR; PIPES HAVE NOT RUSTED THROUGH.) ..... Yes  No

COMMENTS:

**BLEEDERS (113.40(a)(8))**

NUMBER OF BLEEDERS: \_\_\_\_\_ SIZE(S): \_\_\_\_\_

LOCATION (INCLUDE DISTANCE BETWEEN BLEEDERS ON

HORIZONTAL RETORTS): \_\_\_\_\_

COMMENTS:

ARE THEY WIDE OPEN DURING THE ENTIRE PROCESS INCLUDING THE COME-UP TIME? ..... Yes  No

(SHALL REQUIREMENT)

IF NO, EXPLAIN (OR ANY OTHER COMMENTS):

IF A MUFFLER IS USED OVER THE BLEEDERS, WHAT EVIDENCE DOES THE FIRM HAVE THAT IT DOES NOT RESTRICT FREE FLOW OF STEAM? (113.87(g))

(SHOULD REQUIREMENT)

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**BLEEDERS ON CRATELESS RETORTS**

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FOR RETORTS HAVING A TOP STEAM INLET AND BOTTOM VENTING, A BLEEDER SHALL BE INSTALLED IN THE BOTTOM TO REMOVE CONDENSATE – 113.40(a)(8). IT IS RECOMMENDED THAT THERE BE 1 OR MORE 3/8-INCH OR LARGER CONDENSATE BLEEDERS AT THE BOTTOM OF THE RETORT. IN ADDITION, WHEN A FALSE BOTTOM (A PERFORATED STEEL PLATE) IS EMPLOYED, IT IS USEFUL TO HAVE A 1/8-INCH BLEEDER WITH ITS OPENING AT A POINT HIGHER THAN THE CONDENSATE BLEEDER AND JUST BELOW THE FALSE BOTTOM (SEE NFPA BUL 26-L, 13<sup>TH</sup> EDITION, P. 14 AND LACF FIELD GUIDE-PART 2, P. 26).

IN SOME SYSTEMS, A CONDENSATE TRAP MAY BE USED TO COLLECT CONDENSATE BUILDUP AT THE BOTTOM OF THE RETORT IN LIEU OF A STEAM CONDENSATE BLEEDER – IN THIS CASE, THE REMOVAL OF CONDENSATE MAY NOT BE VISIBLE, HOWEVER, A VISIBLE STEAM BLEEDER SHOULD BE LOCATED ABOVE THE CONDENSATE TRAP (JUST BELOW THE FALSE BOTTOM). THIS STEAM BLEEDER SHOULD EMIT ONLY STEAM AND NO CONDENSATE OR WATER DURING THERMAL PROCESSING.

IS THE RETORT EQUIPPED WITH A FALSE BOTTOM TO PREVENT CONTAINERS FROM CONTACTING CONDENSATE? Yes  No

IF SO, IS CONDENSATE REMOVED BY A ..... Condensate Bleeder(s)  , or Steam Trap

WHAT IS THE DIAMETER OF THE STEAM CONDENSATE BLEEDER AND WHERE IS IT POSITIONED?

IS IT VISIBLE TO THE RETORT OPERATOR? ..... Yes  No

IF A STEAM TRAP IS USED, WHERE IS IT POSITIONED? \_\_\_\_\_

COMMENTS:

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IS THE RETORT EQUIPPED WITH A STEAM BLEEDER(S) BETWEEN THE FALSE BOTTOM DOOR AND THE BOTTOM OF THE RETORT? ..... Yes  No

IF SO, REPORT THE NUMBER AND DIAMETER OF THE BLEEDER(S):

DOES THE OPERATOR OBSERVE A FREE FLOW OF STEAM FROM THIS BLEEDER PRIOR TO BEGINNING THE RETORT THERMAL PROCESS TIMING AND AT INTERVALS OF SUFFICIENT FREQUENCY DURING THE PROCESS? ..... Yes  No

ARE THESE OBSERVATIONS RECORDED AT THE TIME THEY ARE MADE? ..... Yes  No

COMMENTS:

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IF A STEAM CONDENSATE BLEEDER(S) IS PRESENT, DOES THE OPERATOR ALSO OBSERVE THE FREE FLOW OF STEAM CONDENSATE FROM THIS BLEEDER JUST BEFORE AND DURING THE THERMAL PROCESS? ..... Yes  No

ARE THESE OBSERVATIONS RECORDED AT THE TIME THEY ARE MADE? ..... Yes  No

COMMENTS:

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**AIR OR WATER COOLING LINE VALVES (113.40(a)(10) to (11))**

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IS WATER OR COMPRESSED AIR USED DURING COOLING? ..... Water  Air

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COMMENTS:

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TYPE OF VALVE ON WATER COOLING LINES SUPPLYING RETORT:

WERE WATER LINES OBSERVED TO BE LEAKING? ..... Yes  No

COMMENTS:

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TYPE OF VALVE ON THE AIR SUPPLY LINE TO THE RETORT:

WERE AIR LINES OBSERVED TO BE LEAKING? ..... Yes  No

COMMENTS:

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**VENTS (113.40(a)(12))**

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NUMBER OF VENTS: \_\_\_\_\_ SIZE(S) – DIAMETER: \_\_\_\_\_

LENGTH: \_\_\_\_\_

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WHAT IS THE VALVE TYPE? ..... Gate  Plug Cock  Other

IF OTHER, SPECIFY:

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ARE VENTS FULLY OPEN DURING VENTING? ..... Yes  No

IF NO, EXPLAIN:

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IS A STEAM BY-PASS VALVE USED DURING VENTING? ..... Yes  No

IF YES, EXPLAIN:

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*(NOTE – VENTING PROCEDURES AND ARRANGEMENTS MUST BE THE SAME AS USED DURING THE TEMPERATURE DISTRIBUTION STUDY THAT WAS CONDUCTED ON THE RETORT TO ESTABLISH THE VENT SCHEDULE.)*

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ARE VENTS LOCATED OPPOSITE THE STEAM INLET? ..... Yes  No

IF NO, EXPLAIN:

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*(VENTS SHALL BE LOCATED OPPOSITE STEAM INLET.)*

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IF VENTS ARE CONNECTED TO A RETORT MANIFOLD, WHAT IS THE MANIFOLD VALVE TYPE?

Gate  Plug Cock  Other

IF OTHER, SPECIFY:

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*(WHERE A RETORT MANIFOLD CONNECTS SEVERAL VENT PIPES FROM A SINGLE RETORT, IT SHALL BE CONTROLLED BY A GATE, PLUG COCK OR OTHER ADEQUATE TYPE VALVE. (113.40(a)(12))*

RETORT MANIFOLD DIAMETER AND CROSS-SECTIONAL AREA: DIA. = \_\_\_\_\_ A = \_\_\_\_\_

*(CROSS SEC. AREA = (3.14) X (r<sup>2</sup>))*

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NUMBER OF VENTS CONNECTING TO MANIFOLD: \_\_\_\_\_ DIAMETER OF CONNECTING VENTS: \_\_\_\_\_

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THE CROSS-SECTIONAL AREA OF ALL CONNECTING VENTS: \_\_\_\_\_ ( $A = (NO. VENTS) \times (3.14) \times (r^2)$ )

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IS THIS LARGER THAN THE CROSS-SECTIONAL AREA OF THE RETORT MANIFOLD? ..... Yes  No

*(THE RETORT MANIFOLD SHALL BE OF A SIZE THAT THE CROSS-SECTIONAL AREA OF THE PIPE IS LARGER THAN THE TOTAL CROSS-SECTIONAL AREA OF ALL CONNECTING VENTS. (113.40(a)(12))*

COMMENTS:

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DOES THE VENT, RETORT MANIFOLD OR MANIFOLD HEADER BREAK TO THE ATMOSPHERE? ..... Yes  No

IF YES, WHERE?

IF NO, EXPLAIN.

*(A MANIFOLD HEADER CONNECTING VENTS OR MANIFOLDS FROM SEVERAL STILL RETORTS SHALL LEAD TO THE ATMOSPHERE – 113.40(a) (12).)*

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DIAMETER AND CROSS-SECTIONAL AREA OF MANIFOLD HEADER (IF APPLICABLE):

DIAMETER = \_\_\_\_\_ AREA = \_\_\_\_\_

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DIAMETERS AND TOTAL CROSS-SECTIONAL AREA OF CONNECTING VENTS/MANIFOLDS FROM ALL RETORTS VENTING SIMULTANEOUSLY:

DIAMETERS = \_\_\_\_\_

AREA = \_\_\_\_\_ ( $A = (NO. OF CONNECTING MANIFOLDS) \times (3.14) \times (r^2)$ )

IS THE MANIFOLD HEADER CROSS-SECTIONAL AREA AT LEAST EQUAL TO THIS AREA? ..... Yes  No

*(THE MANIFOLD HEADER SHALL BE OF A SIZE THAT THE CROSS-SECTIONAL AREA IS AT LEAST EQUAL TO THE TOTAL CROSS-SECTIONAL AREA OF ALL CONNECTING RETORT MANIFOLD PIPES FROM ALL RETORTS VENTING SIMULTANEOUSLY – 113.40(a)(12))*

COMMENTS:

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IS THERE A VALVE ON THE MANIFOLD HEADER? ..... Yes  No

*(THE MANIFOLD HEADER SHALL NOT BE CONTROLLED BY A VALVE – 113.40(a)(12))*

COMMENTS:

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DO VENTING ARRANGEMENTS AND METHODS COMPLY WITH ONE OF THE EXAMPLES IN 113.40(A)(12)? ..... Yes  No

IF NO, DOES THE FIRM HAVE TEMPERATURE DISTRIBUTION DATA OR SUITABLE DOCUMENTATION THAT APPROPRIATE TESTS HAVE BEEN PERFORMED? ..... Yes  No

*(113.40(a)(12)(III))*

COMMENTS:

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IF VENTS ARE EQUIPPED WITH MUFFLERS, SPECIFY TYPE AND PERFORMANCE CHARACTERISTICS. WHAT EVIDENCE DOES THE FIRM HAVE THAT THE MUFFLER(S) ALLOWS ADEQUATE VENTING (SEE 113.87(g)) ?

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**DIVIDER PLATES AND RETORT BASKET – 113.40(a)(9)**

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ARE DIVIDER PLATES USED TO SEPARATE CAN LAYERS? ..... Yes  No   
COMMENTS:

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THE PLATES ARE UNIFORMLY PERFORATED? ..... Yes  No

THE PERFORATIONS ARE AT LEAST 1-IN. HOLES ON 2-IN CENTERS OR THE EQUIVALENT? ..... Yes  No   
*(IN COMMENTS, PROVIDE HOLE SIZE AND DISTRIBUTION (E.G. ¼" ON ½" CENTERS)*

COMMENTS:

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ARE RETORT BASKETS UNIFORMLY PERFORATED? ..... Yes  No

DESCRIBE:

DO BASKET BOTTOMS HAVE AT LEAST 1-IN. HOLES ON 2-IN. CENTERS OR THE EQUIVALENT? ..... Yes  No

*(NOTE – PERFORATED DIVIDER PLATE(S) PLACED DIRECTLY OVER THE PERFORATED STEEL BOTTOM OF THE RETORT BASKETS CAN COVER THE HOLES (IN WHOLE OR IN PART) IN THE BOTTOM PLATE AND RESTRICT THE FLOW OF STEAM THROUGH THE BASKET(S). THIS COULD AFFECT TEMPERATURE DISTRIBUTION IN THE RETORT.)*

COMMENTS:

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DOES FIRM HAVE DOCUMENTATION ON FILE THAT PERMITS VENTING USING DIVIDER PLATES AND THE CURRENT BASKET DESIGN? ..... Yes  No

COMMENTS: