

Firm Name, City & State:

FEI Number:

Inspection Date(s):

FCE Number:

Investigators:

DEPARTMENT OF HEALTH AND HUMAN SERVICES
FOOD AND DRUG ADMINISTRATION

**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. Measure and verify retort plumbing – record on this form. Report all pipe sizes as inside diameter (ID).

Before entering the interior of the retort, you must confirm with the firm that you are following the firm's Standard Operating Procedures designed to meet OSHA confined space requirements. If the firm insists that only plant personnel enter the retort, witness the measurement procedure and data collection. To obtain OSHA confined space information and safety procedures, see the confined space presentation on the FDA ORAU web site. If the firm is not aware of the OSHA confined space requirements or does not have a confined space program, DO NOT ENTER THE RETORT.

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

RETORT DESCRIPTION

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

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

(SHALL REQUIREMENT)

COMMENTS:

ARE BAFFLE PLATES PRESENT IN THE BOTTOM OF THE 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 THAT 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:

Firm Name:

FEI Number:

DOES THE FIRM HAVE DOCUMENTATION ON HAND WHICH 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 21 CFR PART 11? Yes No

COMMENTS:

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

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

(SHALL REQUIREMENT)

COMMENTS:

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 FOR 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:

STANDARD USED FOR THE TEST:

NAME AND TITLE OF PERSON WHO PERFORMED THE TEST:

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

WERE CALIBRATING TEST RECORDS PREPARED/MAINTAINED? Yes No

(SHOULD REQUIREMENT)

COMMENTS:

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

Firm Name:

FEI Number:

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
IF EVALUATION OF PRODUCTION LOTS REVEALS PROCESS DEVIATIONS, ARE THE DEVIATIONS HANDLED PER PART 113.89? 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: _____
(DIAMETER 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:

Firm Name:

FEI Number:

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 GUIDE, PART 2.)

COMMENTS:

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

COMMENTS:

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:

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

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

COMMENTS:

THE TEMPERATURE RECORDER 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:

DOES THE TEMPERATURE RECORDER BULB WELL HAVE A 1/16-IN. DIAMETER OR LARGER BLEEDER THAT EMITS STEAM CONTINUOUSLY DURING THE PROCESSING PERIOD? Yes No N/A

(**SHALL** REQUIREMENT)

COMMENTS:

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:

Firm Name:

FEI Number:

PRESSURE GAGE (113.40(a)(3))

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

COMMENTS:

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

IS THE STEAM CONTROLLER AUTOMATIC? Yes No
(**EACH RETORT SHALL BE EQUIPPED WITH AN AUTOMATIC STEAM CONTROLLER TO MAINTAIN THE RETORT TEMPERATURE.**)

COMMENTS:

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 THAT IT OPERATES SATISFACTORILY.**)

COMMENTS:

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

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:

STEAM INLETS (113.40(a)(5))

IF THE RETORT IS OVER 30 FT LONG, ARE THERE 2 STEAM INLETS? Yes No N/A
IF NO, HOW MANY? _____
(**SHOULD REQUIREMENT**)

COMMENTS:

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

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

THE ID OF THE SMALLEST RESTRICTION IN THE STEAM INLET LINE – DESCRIBE WHERE THE SMALLEST RESTRICTION IS LOCATED (**INCLUDE THE TEMPERATURE (STEAM) CONTROL VALVE AS A RESTRICTION**)

CALCULATED CROSS-SECTIONAL AREA OF SMALLEST RESTRICTION _____

($A = 3.14(r^2)$)

COMMENTS:

Firm Name:

FEI Number:

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:

THE CALCULATED TOTAL CROSS-SECTIONAL AREA OF THE PERFORATIONS: _____

(NO. OF PERFORATIONS) X (3.14) X (r²)

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 1.5 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 AND ARE THE PERFORATIONS CLEARLY OPEN? (FOR EXAMPLE, HOLES HAVE NOT BEEN PLUGGED BY RUST OR SEDIMENT, NOR 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):

Firm Name:

FEI Number:

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)

COMMENTS:

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

IS WATER OR COMPRESSED AIR USED DURING COOLING? Water Air

COMMENTS:

TYPE OF VALVE ON WATER COOLING LINES SUPPLYING RETORT:

WERE WATER LINES OBSERVED TO BE LEAKING? Yes No

COMMENTS:

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

WERE AIR LINES OBSERVED TO BE LEAKING? Yes No

COMMENTS:

VENTS (113.40(a)(12))

NUMBER OF VENTS: _____ SIZE(S) – DIAMETER: _____
LENGTH: _____

WHAT IS THE VALVE TYPE? Gate Plug Cock Other

IF OTHER, SPECIFY:

ARE VENTS FULLY OPEN DURING VENTING? Yes No

IF NO, EXPLAIN:

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

IF YES, EXPLAIN:

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

ARE VENTS LOCATED OPPOSITE THE STEAM INLET? Yes No

IF NO, EXPLAIN:

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

Firm Name:

FEI Number:

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

Gate Plug Cock Other

IF OTHER, SPECIFY:

(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 (r²))

NUMBER OF VENTS CONNECTING TO MANIFOLD: _____ DIAMETER OF CONNECTING VENTS: _____

THE CROSS-SECTIONAL AREA OF ALL CONNECTING VENTS: _____ (A = (NO. OF VENTS) X (3.14) X (r²))

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:

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).)

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

DIAMETER = _____ AREA = _____

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

DIAMETERS = _____

AREA = _____ (A = (NO. OF CONNECTING MANIFOLDS) X (3.14) X (r²))

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:

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:

Firm Name:

FEI Number:

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:

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))?

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

ARE DIVIDER PLATES USED TO SEPARATE CAN LAYERS? Yes No

COMMENTS:

THE PLATES ARE UNIFORMLY PERFORATED? Yes No

ARE THE PERFORATIONS AT LEAST 1-IN. HOLES ON 2-IN. CENTERS OR THE EQUIVALENT?

(IN COMMENTS, PROVIDE HOLE SIZE AND DISTRIBUTION (E.G., 1/4" ON 1/2" CENTERS).)

COMMENTS:

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:

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

COMMENTS:

RETORT PLUMBING AND EQUIPMENT ISSUES

WHEN WAS THE LAST MAJOR OVERHAUL OR MAINTENANCE PERFORMED ON THE RETORTS? Yes No

COMMENTS:

Firm Name:

FEI Number:

DOES THE FIRM CONDUCT A RETORT SURVEY PERIODICALLY (YEARLY), OR AFTER A MAJOR RETORT OVERHAUL OR AFTER MAINTENANCE IS PERFORMED ON CRITICAL EQUIPMENT (*RETORTS, FILLER, BOILER CONFIGURATION, ETC.*)? A RETORT SURVEY IS NOT REQUIRED BY THE REGULATIONS, BUT IS COMMONLY USED TO DOCUMENT THAT A FIRM'S PROCESSING SYSTEM IS IN COMPLIANCE WITH FDA REGULATIONS AND THAT THE SYSTEM MEETS THE SAME CRITERIA (VALVE TYPE, STEAM SPREADER CONFIGURATION, ETC.) AS WHEN TEMPERATURE DISTRIBUTION STUDIES WERE CONDUCTED.

COMMENTS:

DO THE BOILERS SUPPLY SUFFICIENT STEAM TO THE RETORTS? IS THERE SUFFICIENT PRESSURE IN THE HEADER PIPE SUPPLYING STEAM TO THE RETORTS, ESPECIALLY WHEN MORE THAN ONE RETORT IS BEING VENTED SIMULTANEOUSLY?

COMMENTS:

TEMPERATURE DISTRIBUTION

HAVE TEMPERATURE DISTRIBUTION STUDIES BEEN PERFORMED ON THE FIRM'S RETORTS? Yes No
IF SO, WHO CONDUCTED THE STUDY, WHAT PROCEDURES WERE FOLLOWED AND WHO EVALUATED THE DATA?

IS THERE DOCUMENTATION SUCH AS A RETORT DIAGRAM AND PARAMETERS USED TO VALIDATE THE TESTS?

(FOR AN EXPLANATION OF TEMPERATURE DISTRIBUTION, SEE P. 21 OF LACF GUIDE, PART 2. SPECIAL CONSIDERATIONS FOR CONDUCTING TEMPERATURE DISTRIBUTION STUDIES IN STEAM-AIR RETORTS ARE LISTED ON FORM 3511(h).)

COMMENTS:

HAVE THERE BEEN ANY CHANGES TO THE RETORTS OR THERMAL PROCESSING SYSTEM SINCE THE LAST TEMPERATURE DISTRIBUTION STUDY THAT COULD AFFECT TEMPERATURE DISTRIBUTION? Yes No

*(THE RETORT DESIGN, LOADING CONFIGURATION, SMALLEST CONTAINER SIZE AND MANY OTHER FACTORS CAN AFFECT THE ATTAINMENT OF TEMPERATURE DISTRIBUTION IN THE RETORT – SEE PP. 21-22 OF LACF GUIDE, PART 2. A CHANGE IN ANY OF THESE FACTORS COULD NECESSITATE A NEW TEMPERATURE DISTRIBUTION STUDY AND POSSIBLY A NEW VENT SCHEDULE. IF A CHANGE HAS BEEN MADE IN THE THERMAL PROCESSING SYSTEM THAT COULD AFFECT TEMPERATURE DISTRIBUTION, THE FIRM **SHOULD** HAVE ON FILE DOCUMENTATION OF THE CHANGE, INCLUDING THE REVIEW AND APPROVAL BY A QUALIFIED PROCESS AUTHORITY.)*

COMMENTS: