

FOUNDRY FIRST ARTICLE CASTING REQUIREMENTS

THE PURPOSE OF THIS STANDARD CLAUSE IS TO DOCUMENT THE GENERAL REQUIREMENTS FOR A FOUNDRY FIRST ARTICLE (FFA) CASTING.

PRIOR TO SERIAL MANUFACTURE OF PRODUCTION CASTINGS, THE FOUNDRY SHALL

DEMONSTRATE THE ABILITY TO PRODUCE THE PART NUMBER SPECIFIED TO THE

INVOKED DIMENSIONAL AND NDT INSPECTION REQUIREMENTS THROUGH PRODUCTION OF A SINGLE UNIT, THE FOUNDRY FIRST ARTICLE (FFA).

THIS FFA CASTING SHALL CONFIRM THAT THE DIMENSIONAL AND NDT REQUIREMENTS INVOKED BY THE PURCHASE ORDER REQUIREMENTS CAN BE SATISFIED ON PRODUCTION UNITS WITH NO SYSTEMIC OR MAJOR UPGRADES (I.E., WITHOUT EXTENSIVE WELD REPAIRS).

THE FFA CASTING CAN BE DELIVERED AS A PRODUCTION UNIT IF IT SATISFIES

ALL REQUIREMENTS, INCLUDING THE DIMENSIONAL AND NDT INSPECTION CRITERIA, INVOKED BY THE PURCHASE ORDER REQUIREMENTS.

DETAILED REQUIREMENTS ARE AS FOLLOWS:

1) A KICKOFF MEETING WITH THE BUYER SHALL BE CONDUCTED WITHIN 30 DAYS

OF PURCHASE ORDER AWARD AND PRIOR TO START OF ANY FFA CASTING PRODUCTION EFFORTS TO ENSURE ALL ASPECTS OF THE ORDERING DATA HAVE

BEEN REVIEWED AND ADDRESSED BY THE FOUNDRY. A REQUEST FOR RELEASE FOR MANUFACTURE OF THE FFA CASTING SHALL BE PREPARED AND SUBMITTED BY THE FOUNDRY FOR BUYER APPROVAL VIA VENDOR INFORMATION REQUEST (VIR) FOLLOWING COMPLETION OF THE KICKOFF MEETING.

2) THE USE OF SOLIDIFICATION MODELLING TO SIMULATE THE PURCHASE ORDER

INVOKED FFA CASTING DESIGN SHALL BE EVALUATED AND DISCUSSED AT THE

KICKOFF MEETING.

3) FOR PRODUCTION OF THE FFA CASTING, THE FOUNDRY SHALL COMPLETE MOLDING, POURING, RISER REMOVAL, SAND BLASTING, AND HEAT TREATMENT IN ADVANCE OF A COMPLETE DIMENSIONAL AND NDT INSPECTION IN ACCORDANCE

WITH THE PURCHASE ORDER REQUIREMENTS.

4) THE FFA CASTING SHALL BE PERMANENTLY MARKED WITH THE PURCHASE ORDER

NUMBER, THE LINE ITEM, AND THE LETTERS "FFA", TO DISTINGUISH IT FROM

PRODUCTION UNITS. IN THE CASE OF THE FFA BECOMING A PRODUCTION UNIT,

ALL OTHER MARKINGS AS REQUIRED BY THE PO SHALL BE APPLIED, AND THE

PART SHALL ALSO RETAIN THE ORIGINAL THREE LETTER "FFA" MARKING.

5) A HOLD POINT IN THE MANUFACTURE FOR FOLLOW-ON CASTINGS OF THE SAME

DESIGN IS INVOKED UNTIL THE RESULTS OF THE FFA DIMENSIONAL AND NDT

INSPECTIONS HAVE BEEN SUBMITTED TO AND APPROVED BY THE BUYER.

6) A FFA INSPECTION REPORT SHALL BE PREPARED AND SUBMITTED BY THE FOUNDRY FOR BUYER REVIEW AND APPROVAL VIA VENDOR PROCEDURE APPROVAL

REQUEST (VPAR) PRIOR TO ACCEPTANCE OF THE FFA CASTING AND RELEASE OF SERIAL MANUFACTURE OF PRODUCTION CASTINGS. THE REPORT SHALL SHOW THE RESULTS AND COMPLETION OF INSPECTION PROCEDURES

PERFORMED FOR OR BY THE FOUNDRY TO DEMONSTRATE THAT THE FFA UNIT CONFORMS TO FIRST ARTICLE INSPECTION REQUIREMENTS INVOKED IN THE PURCHASE ORDER OR EQUIPMENT SPECIFICATIONS. THE REPORT MUST DETAIL THE SPECIFIC INSPECTION PROCEDURE, THE RESULTS OBTAINED, AND ANY EXCEPTIONS OR DEVIATIONS NOTED DURING THE TESTS.

INSPECTION RESULTS SHALL BE QUANTITATIVE DATA IN THE FORM OF INSTRUMENT OR METER DATA, RECORDINGS, AND WRITTEN OBSERVATIONS SIGNED/ CERTIFIED BY A QUALIFIED FOUNDRY INSPECTOR.

7) THE FOUNDRY MAY REQUEST A WAIVER OF THE ABOVE REQUIREMENTS TO PRODUCE THE REQUIRED FFA CASTING BY SUBMITTING EVIDENCE OF PAST SUCCESSFUL MANUFACTURE OF THE SPECIFIC CASTING DESIGN TO THE BUYER FOR EVALUATION AND APPROVAL VIA A VENDOR INFORMATION REQUEST (VIR). A WAIVER MAY ALSO BE REQUESTED IF THE FOUNDRY CAN PROVIDE DETAILED

RATIONALE THAT A SIMILAR, SUCCESSFULLY PRODUCED CASTING ADEQUATELY

REPRESENTS THE SUBJECT CASTING DESIGN COVERED BY THE PURCHASE ORDER.

8) PRODUCTION MATERIAL WILL BE REJECTED IF THE FFA CERTIFICATION AND/OR INSPECTION REPORT ARE NOT RECEIVED AND APPROVED BY THE BUYER.