

No. TSD 59.007	
Rev.	Date
Orig	1/3/13

CRN REGISTRATION FILE FOR #0H2915.5CR3

PREPARED BY: RT Gula, Product Design Engineer DATE 1/9/13

APPROVED BY: S Kroon, Sr. Project Engineer DATE 1/10/13

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RAC for J Lindstrom, Product Mktg Engr DATE 1/10/13

M Valachos, Manager Sales & Eng DATE 1/10/13

REVISION RECORD				
Revision	Affected Paragraphs	Brief Description of Revision	Date	Approval Signature
Orig.	All	Original Release per E.O. QP-13601	1/3/13	<u>RT Gula</u>

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1.0 Introduction / Purpose:

Conax's CRN Registration Number 0H2915.5CR2 (Revision 2) expired in August 2012. This registration number was valid for ALL Canadian Provinces. During the renewal process for 0H2915, Reference [2.1] was submitted to the Canadian Technical Standards & Safety Authority (TSSA) of Ontario to provide the necessary technical justifications to support approval of a 10-year renewal in ALL provinces. As part of the renewal effort, no new fitting Part Numbers were proposed to be added however new material options were recommended to be added based upon Reference [2.1] technical justifications. Previously only 304, 304L, 316, and 316L SST materials were allowed.

All thirteen (13) Canadian Provinces have granted approval of the 10-year renewal for 0H2915. This document provides a collection of the "certified" paperwork from each Canadian Province which essentially grants approval of CRN Registration Number 0H2915.5CR3 (Revision 3) which will expire on August 2, 2022. Additionally, this document also summarizes the fitting Part Numbers and Material Options covered under CRN 0H2915.5CR3. All applicable documentation (i.e., drawings, catalogs, and laser marking programs) will need to be updated to reflect use of the new material options allowed and the new 0H2915.5CR3 file number.

2.0 Reference Documents:

- 2.1 Conax TSD 59.006 "CRN Registration Renewal Support Document"

3.0 CRN #0H2915.5CR3 (Revision 3) Requirements:

Consult Reference [2.1] for additional information and technical support.

3.1 Fitting Part Numbers Covered:

Table 1 identifies the fittings covered under CRN #0H2915.5CR3 (Revision 3). These are the same fitting part numbers covered under CRN #0H2915.5CR2 (Revision 2).

3.2 CRN Pressure Ratings:

Table 2 identifies the allowable CRN Pressure Ratings for each fitting based upon the Temperature Range and fitting's NPT Thread Size. These are the same ratings previously covered under #0H2915.5CR2 (Revision 2).

3.3 Allowable Material Options:

Table 3 identifies the material options allowed under CRN #0H2915.5CR3. Previously, CRN #0H2915.5CR2 only allowed fitting bodies to be constructed out of 304, 304L, 316, or 316L SST material per ASTM A479 requirements.

Table 1: Fitting Part Numbers covered under CRN Registration File #0H2915.5CR3

Item	Fitting Part Number ⁽¹⁾	Fitting Description	NPT Fitting Sizes Allowed
1	117-XX-ZZZZCRN	EG-750(CRN)	1-1/2"
2	258-XX-ZZZZCRN	MIC(CRN)	1/16"
3	327-XX-ZZZZCRN	MPG(CRN)	1/8"
4	1448-XX-ZZZZCRN	TG8(CRN), MHC5(CRN)	1/2", 3/4", 1"
5	1896-XX-ZZZZCRN	MHM5(CRN), SPG150(CRN), DSPG(CRN), EG37(CRN), EG50(CRN)	3/4", 1"
6	2447-XX-ZZZZCRN	MTG(CRN), MHC1(CRN)	1/8"
7	5936-XX-ZZZZCRN	EG09(CRN)	1/8"
8	5971-XX-ZZZZCRN	TG14(CRN), MHC4(CRN)	1/4", 1/2"
9	5980-XX-ZZZZCRN	MHM4(CRN), SPG100(CRN), DSPG100(CRN), EG25(CRN), EG31(CRN)	1/2"
10	6032-XX-ZZZZCRN	TG20(CRN), TG24(CRN), MHC2(CRN)	1/4", 3/8"
11	6036-XX-ZZZZCRN	MHM2(CRN), EG12(CRN), EG18(CRN)	1/4", 3/8"
12	6470-XX-ZZZZCRN	PG2(CRN)	1/8", 1/4", 3/8"
13	6477-XX-ZZZZCRN	PL5(CRN)	3/4", 1"
14	6570-XX-ZZZZCRN	PG4(CRN)	1/4", 3/8", 1/2"
15	6574-XX-ZZZZCRN	PG5(CRN)	1/2", 3/4", 1"
16	317729-XX-ZZZZCRN	PG6(CRN)	1"
17	319098-XX-ZZZZCRN	PG7(CRN)	1-1/4"
18	31-0129-XX-ZZZZCRN	MHM6(CRN)	1"

- (1) P/N Designation: XX = Numeric Dash Variation (to control fitting variations such as mounting thread and bore size)
ZZZZ = Conax Material Option Code per Table 3

Table 2: CRN Registration File #0H2915.5CR3 Pressure Ratings

Temperature Range (T)	NPT Thread Size		
	≤ 3/4" NPT	1" NPT	1-1/4", 1-1/2" NPT
T < 220°F	2500 psi	2500 psi	2500 psi
220° < T ≤ 850°F	1500 psi	1200 psi	600 psi
850°F < T	Not Allowed	Not Allowed	Not Allowed

Table 3: Fitting Material Options covered under CRN Registration File #0H2915.5CR3

Item	Material	Conax Material Modifier Code	UNS Number	ASTM Material Standard	Minimum Required Yield Strength ⁽²⁾
1	Monel 400	M400	N04400	B164	25 ksi
2	Monel 405	M405	N04405	B 164	25 ksi
3	Hastelloy X	HX	N06002	B 572	35 ksi
4	Inconel 600	I600	N06600	B 166	35 ksi
5	Inconel 625	I625	N06625	B 446	60 ksi
6	Incoloy 800	INY800	N08800	B 408	30 ksi
7	Hastelloy C276	HC276	N10276	B 574	41 ksi
8	304H SST	S304H	S30409	A 479	30 ksi
9	310S SST	S310S	S31008	A 479	30 ksi
10	310H SST	S310H	S31009	A 479	30 ksi
11	316L SST (NACE)	NC316L	S31603	A 479	25 ksi
12	316 SST (NACE)	NC316	S31600	A 479	30 ksi
13	321 SST	S321	S32100	A 479	30 ksi
14	321H SST	S321H	S32109	A 479	30 ksi
15	347 SST	S347	S34700	A 479	30 ksi
16 ⁽¹⁾	304 SST	S304	S30400	A 479	30 ksi
17 ⁽¹⁾	304L SST	S304L	S30403	A 479	25 ksi
18 ⁽¹⁾	316 SST	S316	S31600	A 479	30 ksi
19 ⁽¹⁾	316L SST	S316L	S31603	A 479	25 ksi

(1) Previously approved under CRN #0H2915.5CR2 (Revision 2)

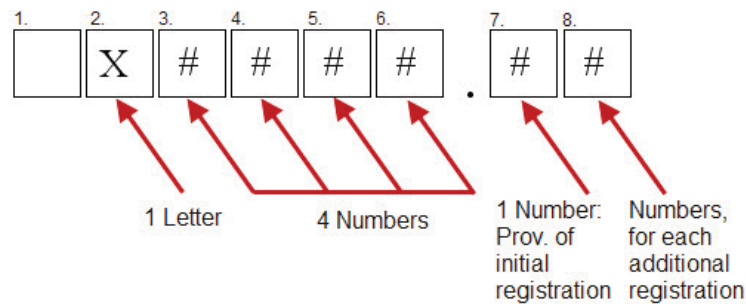
(2) Per 2010 ASME B&PV Code, Section II, Part D, Table Y-1

4.0 CRN Marking Requirements:

4.1 CRN Number Designation:

A Canadian Registration Number (CRN) for a boiler or pressure vessel is defined by CSA B51. It may consist of up to six (6) characters to the left of a decimal point followed by eight (8) or more characters to the right of the decimal point as depicted below.

For Conax Fittings, place holder #1 is the digit 0 (zero) and place holder #2 is the letter H. Place holders #3 - #6 represent a 4 digit sequential number unique to the registration file (e.g. 2915 for Conax Fittings). Place holder #7 is the Province code where the initial registration was filed (i.e., see below 5 = Ontario). Place holder #8 and beyond represent additional provinces where the registration is filed. If the registration is filed in all 13 provinces, place holder #8 can be listed as the letter "C" in lieu of listing each Province code. The expression "R1", "R2", "R3", etc at the end of the registration number signifies the revision level (i.e., "R3" would equate to Revision 3).



In accordance with CSA B51 the following codes are used for each province:

- | | | |
|----------------------|--------------------------|-----------------------------|
| 1 - British Columbia | 5 - Ontario | 0 - Newfoundland & Labrador |
| 2 - Alberta * | 6 - Quebec | T - Northwest Territories |
| 3 - Saskatchewan | 7 - New Brunswick | Y - Yukon Territory |
| 4 - Manitoba | 8 - Nova Scotia | N - Nunavut |
| | 9 - Prince Edward Island | |



4.2 CRN #0H2915.5CR3 Certification Packages:

Appendices A - F contain copies of the certification paperwork from each province granting approval of 0H2915.5CR3. The table below identifies the specific Appendix where the certification paperwork can be found for each province(s). For each province this entails copies of the signed and stamped “Statutory Declaration” except for the Province of British Columbia. Through email correspondence with a representative from British Columbia’s Safety Authority contained in Appendix G, the Province of British Columbia does not stamp and sign the Statutory Declaration. Therefore Appendix B only contains a copy of their approval letter for the renewal effort.

Appendix	Province (s)
A	Ontario
B	British Columbia
C	Alberta
D	Manitoba
E	Prince Edward Island, Nova Scotia, New Brunswick, Newfoundland & Labrador, Yukon Territory, Northwest Territory, Nunavut
F	Quebec and Saskatchewan

4.3 CRN Product Marking Requirements for Conax Fittings:

With registration files provided from each of the thirteen (13) Provinces, use of the 0H2915.5CR3 number is considered acceptable. It is noted that per Appendix F, the registration for the Provinces of Quebec and Saskatchewan was conducted by CSA International and the prefix “CSA” should be added to the beginning of the CRN number as CSA-0H2915.56R3. However, when using the letter “C” to denote registration in all provinces, it is not required to use the prefix “CSA” as confirmed through email correspondence with representatives from CSA and ANRIC as contained in Appendix H. As such, Conax fittings identified in Table 1 shall be marked as follows:

CONAX TECHNOLOGIES
xxxx PER ASTM **yyyy**
 CRN NO. 0H2915.5CR3

where:
xxxx = Material Description Code per Table 3
yyyy = ASTM Specification per Table 3

Marking Examples:

For 316 SST:

CONAX TECHNOLOGIES
 S316 PER ASTM B479
 CRN NO. 0H2915.5CR3

For Hastelloy C276:

CONAX TECHNOLOGIES
 HC276 PER ASTM B574
 CRN NO. 0H2915.5CR3

END OF DOCUMENT

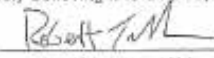
UNIFORM STATUTORY DECLARATION FORM FOR THE REGISTRATION OF FITTING DESIGNS

NEW BRUNSWICK NOVA SCOTIA PRINCE EDWARD ISLAND NEWFOUNDLAND AND LABRADOR
NUNAVUT YUKON NORTHWEST TERRITORIES

MANUFACTURERS NAME: <u>Conax Technologies LLC</u>	
MANUFACTURERS ADDRESS: <u>2300 Walden Avenue, Buffalo, NY 14225 U.S.A.</u>	
PLANT LOCATIONS: <u>Same</u>	
<u>CATEGORY OF FITTINGS TO BE REGISTERED. CIRCLE ONE CATEGORY ONLY</u>	
<input type="checkbox"/> A Pipe fittings, including couplings, tees, elbows, Ys, plugs, unions, pipe caps, or reducers <input type="checkbox"/> B Flanges: all flanges <input type="checkbox"/> C Valves: all the valves <input type="checkbox"/> D Expansion joints, flexible connections, and hose assemblies: all types <input type="checkbox"/> E Strainers, filters, separators, and steam traps <input type="checkbox"/> F Measuring devices, including pressure gauges, level gauges, sight glasses, levels, or pressure transmitters <input type="checkbox"/> G Certified capacity-rated pressure relief devices acceptable as primary over pressure protection on boilers, pressure vessels, piping and fusible plugs <input checked="checked" type="checkbox"/> H Pressure retaining components that do not fall into one of the above categories <input type="checkbox"/> I Nuclear components: Class 1 <input type="checkbox"/> Class 2 <input type="checkbox"/> Class 3 <input type="checkbox"/> (Meeting AECB or ASME requirements)	TITLE OF THE STANDARD OF CONSTRUCTION <u>Proprietary Standard supported by Proof Pressure Test</u>
<u>SHOW MANUFACTURERS NAME, TRADEMARK, OR LOGO AS IT WILL APPEAR ON THE PRODUCT</u>	
"Conax Technologies" XXXX per ASTM YYYY" XXXX = Material Code per TSD 59.006 YYYY = Specification Number per TSD 59.006	TYPE OF CONSTRUCTION FORGED <input type="checkbox"/> WELDED <input type="checkbox"/> WROUGHT <input type="checkbox"/> CAST <input type="checkbox"/> OTHER <input type="checkbox"/> DESCRIBE OTHER <u>Machined</u>
<u>LIST OF SUPPORTING DOCUMENTATION AND IDENTIFICATION OF THE ACTUAL ITEMS TO BE REGISTERED:</u>	
<u>Reference Conax TSD Report Number 59.006</u> <u>* Fittings per TSD 59.006 Table 1</u> <u>* Allowable materials per TSD 59.006 Table 2</u>	

DECLARATION:

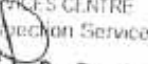
I, Robert Gula (SEE NOTE 3) employed by Conax Technologies and being the person having full authority and responsibility for the quality of the end product do solemnly declare that the information contained in this form is true and to the best of my knowledge represents the product for which registration is sought. The dimensions, materials of construction, pressure temperature ratings, and identification markings are in accordance with the herein named standards. I further declare that the manufacture of these fittings is regulated by a Quality Control Program which extends to each plant where fabrication occurs in whole or in part and has been verified by SGS as being suitable for that purpose and having the same force and effect as if made in Canada. I declare conscientiously believing it to be true, and knowing that it is of the same force and effect as if made in Canada.

Signature of Declarer: 
 Declared before me at Buffalo, NY
 This 27th day of April AD 2012

PATRICE MARION KOTANS
 Notary Public, State of New York
 Qualified in Niagara County
 My Commission Expires July 31, 2012



Commissioner of Oaths
 or Notary Public: (sign) 
 (Affix Official seal to the right)

This space for Regulatory Authority use This registration must be revalidated after ten (10) years from the date of acceptance	
CRN: <u>0H2915.5 Rev3</u>	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Government Services Registered <u>0H2915.50 Rev.3</u> Date <u>2012/9/21</u>
FID#: <u>14632</u>	GOVERNMENT SERVICES CENTRE Engineering and Inspection Services Registered by  UNDER THE AUTHORITY OF THE PUBLIC SAFETY ACT AND THE BOILER, PRESSURE VESSEL AND COMPRESSION GAS REGULATIONS
Notes: 1. All fittings shall be registered in the name of the Manufacturer. 2. Each category shall be supported with two Statutory Declaration forms and one copy of supporting documentation. 3. The declaration shall be made by the person having full authority and responsibility for the quality of the end product. 4. Quality control programs shall be resubmitted for validation at a maximum interval of five (5) years.	