

<b>No. TSD 59.007</b>	
<b>Rev.</b>	<b>Date</b>
<b>Orig</b>	<b>1/3/13</b>

**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

G.J. Boyce, Quality Assurance Manager DATE 1/10/13

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 <sup>(1)</sup>	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 <sup>(2)</sup>
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 <sup>(1)</sup>	304 SST	S304	S30400	A 479	30 ksi
17 <sup>(1)</sup>	304L SST	S304L	S30403	A 479	25 ksi
18 <sup>(1)</sup>	316 SST	S316	S31600	A 479	30 ksi
19 <sup>(1)</sup>	316L SST	S316L	S31603	A 479	25 ksi

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

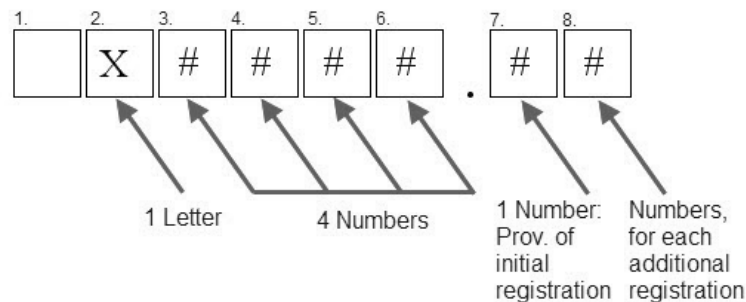
(2) Per 2010 ASME B&PV Code, Section II, Part D, Table Y-1

#### 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**





TSD 59.007  
Revision Orig  
Appendix A

## **Certification Package for Province of Ontario**



14th Floor, Centre Tower  
3300 Bloor Street West  
Toronto, Ontario  
Canada M8X 2X4  
Tel.: 416.734.3300  
Fax: 416.231.1626  
Toll Free: 1.877.682.8772  
[www.tssa.org](http://www.tssa.org)

August 02, 2012

ROBERT GULA  
CONAX TECHNOLOGIES LLC  
2300 WALDEN AVE  
BUFFALO NY 14225

**Service Request Type:** BPV-Fitting Registration  
**Service Request No.:** 801288  
**Your Reference No.:** RENEW CRN 0H2915.5 - NAT'L SERV.

Dear Mr Gula,

Technical Standards and Safety Authority (TSSA) is pleased to inform you that your submission on April 30, 2012 has been reviewed and registered as follows:

**CRN No.:** 0H2915.5R3  
**Reference No.:** RENEW CRN 0H2915.5 - NAT'L SERV.  
**Main Design No.:** TSD REPORT # 59.006  
**Expiry Date:** 02-Aug-2022

Please be advised that a valid quality control system must be maintained for the fitting registration to remain valid until the expiry date.

Scope of registration includes document entitled CRN Registration Renewal Support Document and drawing package defining materials, dimensions, temperatures and MAWP

A stamped copy of the approved registration and invoice for engineering services will be mailed to you shortly. Should you have any questions or require further assistance, however, please contact a Customer Service Advisor at 1.877.682.TSSA (8772) or e-mail [customerservices@tssa.org](mailto:customerservices@tssa.org). We will be happy to assist you. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

Gerry Goettl  
Tel. No.: 416-734-3429  
Fax. No. :416-231-6183  
[ggoettl@tssa.org](mailto:ggoettl@tssa.org)

Putting Public Safety First



**TECHNICAL STANDARDS & SAFETY AUTHORITY**  
14th Floor, Centre Tower  
3300 Bloor Street West  
Toronto, Ontario  
Canada M8X 2X4

Show facsimile of manufacturer's logo or trademark, as it will appear on the fitting, in the space below

"Conax Technologies  
XXX per ASTM YYY"  
XXX = TSD 59.006 Material Code  
YYYY = Specification Number

**STATUTORY DECLARATION**  
**Registration of Fittings**

I, Robert Gula (Product Design Engineer)  
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of Conax Technologies LLC  
(Name of Manufacturer)

Located at 2300 Walden Avenue; Buffalo NY 14225 716-684-4501 x385 716-684-7433  
(Plant Address) (Telephone No.) (Fax No.)

do solemnly declare that the fittings listed hereunder, which are subject to the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, comply with all of the requirements of

(Title of recognized North American Standard)  
which specifies the dimensions, materials of construction, pressure/temperature ratings, identification marking the fittings and service;

or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with Proof Pressure Test \_\_\_\_\_ as supported by the attached data which identifies the dimensions, material of construction, pressure/temperature ratings and the basis for such ratings, the marking of the fitting for identification and service.

I further declare that the manufacture of these fittings is controlled by a quality system meeting the requirements of ISO 9001:2008 which has been verified by the following authority, SGS

The items covered by this declaration, for which I seek registration, are category H type fittings. In support of this application, the following information and/or test data are attached as follows:  
Conax TSD Report #59.006 Rev. Orig

(drawings, calculations, test reports, etc.)

Declared before me at Buffalo in the state of New York  
the 27th day of April AD 2012.

Commissioner for Oaths:  
PATRICE MARION KOTANSKY  
(Printed name)  
Patrice Marion Kotansky  
(Signature)

PATRICE MARION KOTANSKY  
Notary Public, State of New York  
Qualified in Niagara County  
My Commission Expires July 31, 2013

Robert Gula  
(Signature of Declarer)

**FOR OFFICE USE ONLY**

To the best of my knowledge and belief, the application meets the requirements of the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, and CSA Standard B51 and is accepted for registration in Category H.

Technical Standards and Safety Authority  
Boilers and Pressure Vessels Safety Program

CRN: 0H2915.5R3  
Registered by: M. Boetto  
Dated: Aug 02/12

**REGISTERED**  
C.R.N. .... 0H2915.5R3  
Signed: M. Boetto  
Date: August 02/12

NOTE: This registration expires on Aug 02/22