

**INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC) SYSTEM
FOR CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR
USE IN EXPLOSIVE ATMOSPHERES (IECEX SYSTEM)**

Ex Management Committee, ExMC

TITLE: IECEX System Report Card - 2017

INTRODUCTION

The Secretariat has prepared this document as an annual Report Card to IECEX Members on both the state of the IECEX System and progress on a number of matters since the 2016 IECEX ExMC meeting in Umhlanga, such as:

- IECEX System Membership
- Statistics of issued IECEX Certificates of Conformity, ExTRs, QARs, FARs and PCARs
- Review of the IECEX System including review of Certificates and supporting documents
- Finances
- Promotional Activities
- Secretariat and General Technical Administration activities
- Annex A as a report from the IECEX Chair visit and review of the IECEX Secretariat Office in Sydney

This document is issued for information to members and is listed on the IECEX 2017 ExMC meeting agenda for noting and any necessary discussion.

Address:

IECEX Secretariat
Level 33, Australia Square
264 George Street
Sydney NSW 2000
Australia

Contact Details:

Tel: +61 2 4628 4690
Fax: +61 2 4627 5285
e-mail: info@iecex.com
<http://www.iecex.com>

IECEX System Report Card - 2017

1. General Overview

Discussions and decisions from the 2016 series of IECEx Meetings in Umhlanga set the tone and direction for further development, growth and expansion of the IECEx System and its Schemes.

The Secretariat is pleased to report on the following key points concerning IECEx operation since the 2016 IECEx meetings in Umhlanga:

- At the time of preparing this report, Israel is recorded as the most recent Country to join IECEx and there is continued interest from various countries including Belgium, Saudi Arabia and Ireland
- Operation of the IECEx Certified Service Facilities Scheme, now starting to take traction, with 227 Certificates issued to date since Scheme commencement in late 2007
- Operation of the IECEx Certificate of Personal Competence (CoPC) Scheme also gaining traction with 1488 Certificates issued to date since Scheme commencement in late 2010. Of the 1488 issued Certificates, 136 have been issued already in 2017.
- Increased use of IECEx Unit Verification Certificates
- Promotion of the Publication from the United Nations, UNECE, *Common Regulatory Objective* for the Ex Sector continues to support IECEx
- Additional enhancements to the IECEx On-Line Certificate of Conformity System, to provide additional tools for ExCBs to assist in their management of surveillance activities of issued Certificates
- Additional Search Tools to the On-Line Certificate System, for both the Public viewer and ExCBs
- The marked increase in the demand and issue of IECEx Certificates of Conformity and Reports, as reported in 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015 and 2016, continues in 2017 with year on year growth being maintained.
- Continued processing of Scope extensions from ExTLs and ExCBs
- Promotion at Regional and International forums
- Greater involvement by industry, end-users and regulators
- An increase in the number of day to day industry inquiries being directed at the IECEx Secretariat – this is reflected in the increased e-mail traffic of the Secretariat
- Work on the expansion and update of the “IECEX Website” @ www.iecex.com

2. Membership

IECEX System Membership, as of 30th June 2017 stands at:

- **33** Countries as members of the IECEX Management Committee, ExMC
- With **four** separate Certification Schemes
 - IECEX Certified Equipment Scheme (Rules = IECEX 02)
 - IECEX Certified Service Facilities Scheme (Rules = IECEX 03)
 - IECEX Conformity Mark Licensing System (Regulations = IECEX 04)
 - IECEX Certification of Personnel Competencies (CoPC) Scheme (Rules = IECEX 05)and the IECEX Recognised Training Provider Program (RTPP)
- **IECEX Certified Equipment Scheme**
 - **55** Accepted ExCBs (+ 5 Applicants)
 - **62** Accepted ExTLs (+ 7 Applicants)
- **IECEX Certified Service Facilities Scheme**
 - **13** Accepted ExCBs (+ 4 Applicants)
- **IECEX Conformity Mark Licensing System**
 - **16** Accepted License issuing ExCBs
- **IECEX Certification of Personnel Competencies (CoPC) Scheme**
 - **10** Accepted ExCBs (+ 6 Applicants)
- **IECEX Recognised Training Provider Program (RTPP)**
 - **17** Recognised Training Providers (RTPs)

3. Statistics – Certificates, Licenses and Reports

At 30th June 2017 there were **65,490** Issued IECEX Reports, Certificates and Licenses across all the following four IECEX Schemes compared with **56,133** for the same time last year (30th June 2016) – this represents an overall growth of **16.7%**.

- The IECEX Certified Equipment Scheme, IECEX 02 (see Table 1A)
- The IECEX Certified Service Facilities Scheme, IECEX 03. (see Table 2)
- The IECEX Conformity Mark Licensing System, IECEX 04 (see Table 3)
- The IECEX Certification of Personnel Competencies (CoPC) Scheme, IECEX 05 (see Table 4)

The figure “Totals”, in Table 1A, show the total number of combined Equipment CoCs (Certificates of Conformity), ExTRs (IECEX Test Reports) and QARs (IECEX Quality Audit Reports) issued under the IECEX Certified Equipment Scheme. Table 1B shows a comparison between new Certificates (Issue 0) compared to supplementary issues of existing Certificates (i.e. changes to existing certificates, Issue 1 and above).

Figure 1A provides an overview trend of the number of Certificates and Reports issued under the IECEX 02 Scheme (Certified Equipment Scheme), while Figure 2 provides a breakdown of the percentage weighting of CoCs compared to ExTRs and QARs issued over the life of the IECEX System.

The conclusion drawn from these statistics is that the IECEx Certified Equipment Scheme is still experiencing significant and sustained growth. The following factors are seen as facilitating this growth:

- Penetration of new markets, such as the Gulf Region
- Industry's recognition of the value that certification under an Internationally accepted Regime brings to risk mitigation as part of their compliance regime
- The increasing involvement by industry in the management and operation of IECEx
- The credibility of the IECEx System based on compliance to IEC Standards, a common assessment system for all ExCBs and ExTLs, and ongoing surveillance;
- Increased awareness and recognition of IECEx as "world's best practice" via the formal endorsement by the UNECE, as per new United Nations approved CRO publication, March 2011
- One set of operational procedures and reporting formats (i.e. the IECEx way of Ex Certification);
- The transparency of IECEx activities provided by the IECEx website and On-Line CoC system;
- A greater level of industry understanding of the IECEx system by way of promotion of IECEx by IECEx Officers and Members;
- A growing international awareness of the value of structured International Conformity Assessment Systems such as IECEx;
- The value of networking among all Ex experts including ExCBs and ExTLs and associated technical discussion forums provided, e.g. ExTAG;
- A dedicated technical Secretariat

3.1 IECEx 02 – IECEx Certified Equipment Scheme

Year ending Figures IECEx 02 Certified Equipment Scheme

Table 1A- Total number of IECEx Equipment CoCs and Reports issued

| Total number of IECEx Equipment CoCs | | | | | |
|--------------------------------------|--------------|--------------|--------------|----------------------|---------------------------|
| Issued In the Year of | CoCs | ExTRs | QARs | Total CoCs & Reports | Drafts CoCs in the System |
| 2001 | 0 | 2 | 0 | 2 | 0 |
| 2002 | 0 | 4 | 0 | 4 | 0 |
| 2003 | 12 | 10 | 1 | 23 | 10 |
| 2004 | 98 | 61 | 43 | 202 | 115 |
| 2005 | 262 | 133 | 154 | 549 | 225 |
| 2006 | 563 | 909 | 387 | 1859 | 360 |
| 2007 | 931 | 906 | 386 | 2223 | 431 |
| 2008 | 1258 | 1166 | 350 | 2774 | 499 |
| 2009 | 1490 | 1347 | 712 | 3549 | 618 |
| 2010 | 2070 | 1897 | 947 | 4914 | 675 |
| 2011 | 2626 | 2143 | 966 | 5735 | 1000 |
| 2012 | 2680 | 2301 | 1019 | 6000 | 1150 |
| 2013 | 3104 | 2783 | 1027 | 6914 | 1286 |
| 2014 | 3562 | 3265 | 1246 | 8073 | 1461 |
| 2015 | 3904 | 3655 | 1353 | 8912 | 1583 |
| 2016 | 4093 | 3819 | 1459 | 9371 | 1921 |
| @ 30 June 2017 | 1971 | 1787 | 628 | 4386 | 2507 |
| Totals | 28624 | 26188 | 10678 | 65490 | |

Unit Verification Certificates

One hundred and twenty four (124) IECEx Equipment Unit Verification Certificates have been issued since the 30th June 2016

Table 1B – Issue 0 CoCs (New Certificates as opposed to up issues) expressed as % of all CoCs (Equipment Scheme)

| Issue 0 CoCs expressed as % of all CoCs | | | |
|---|------------|------------------|----------------------------|
| Issued in the Year of | # All CoCs | # "Issue 0" CoCs | "Issue 0" as % of all CoCs |
| 2008 | 1258 | 693 | 55.1% |
| 2009 | 1490 | 799 | 53.6% |
| 2010 | 2070 | 1032 | 49.9% |
| 2011 | 2626 | 1158 | 44.1% |
| 2012 | 2680 | 1172 | 43.7% |
| 2013 | 3104 | 1337 | 43.1% |
| 2014 | 3562 | 1517 | 42.6% |
| 2015 | 3904 | 1668 | 42.7 % |
| 2016 | 4093 | 1721 | 42.0 % |
| YTD @ 30 June 2017 | 1971 | 796 | 40.3 % |

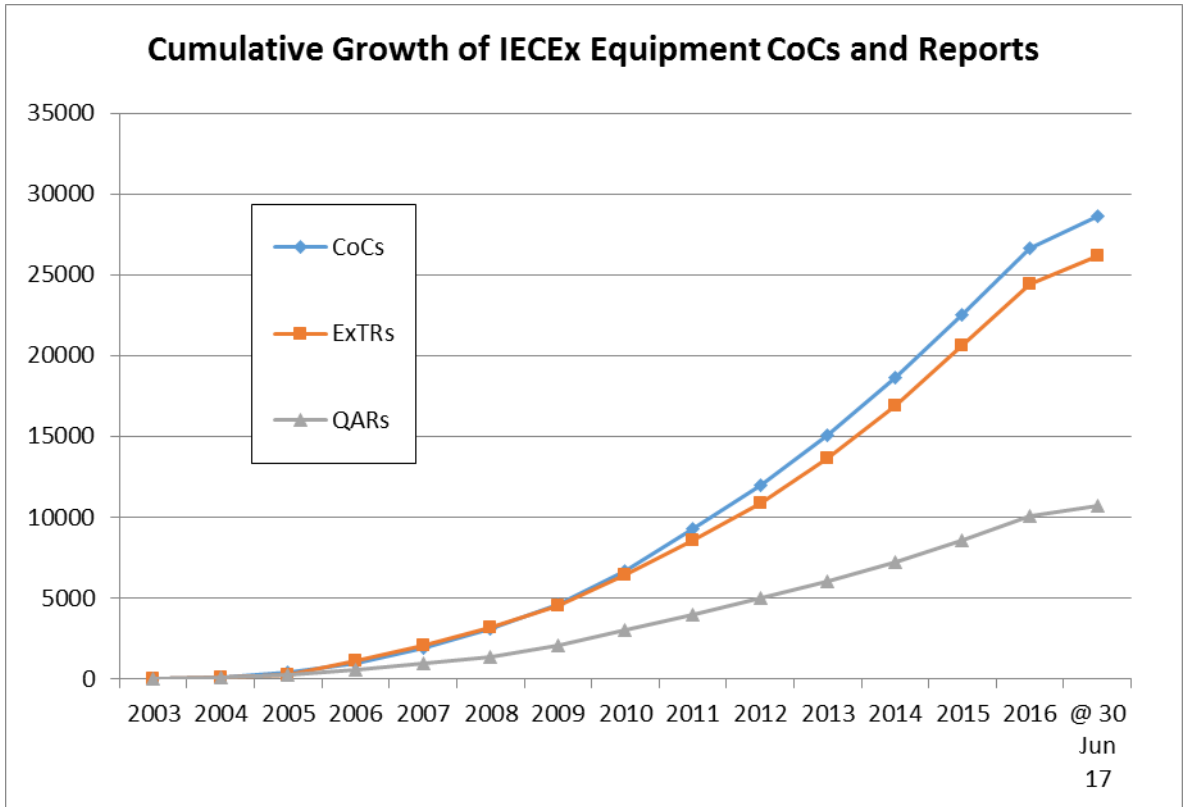


Figure 1A – Cumulative Growth of Issued IECEx CoCs, ExTRs and QARs for the IECEx Certified Equipment Scheme

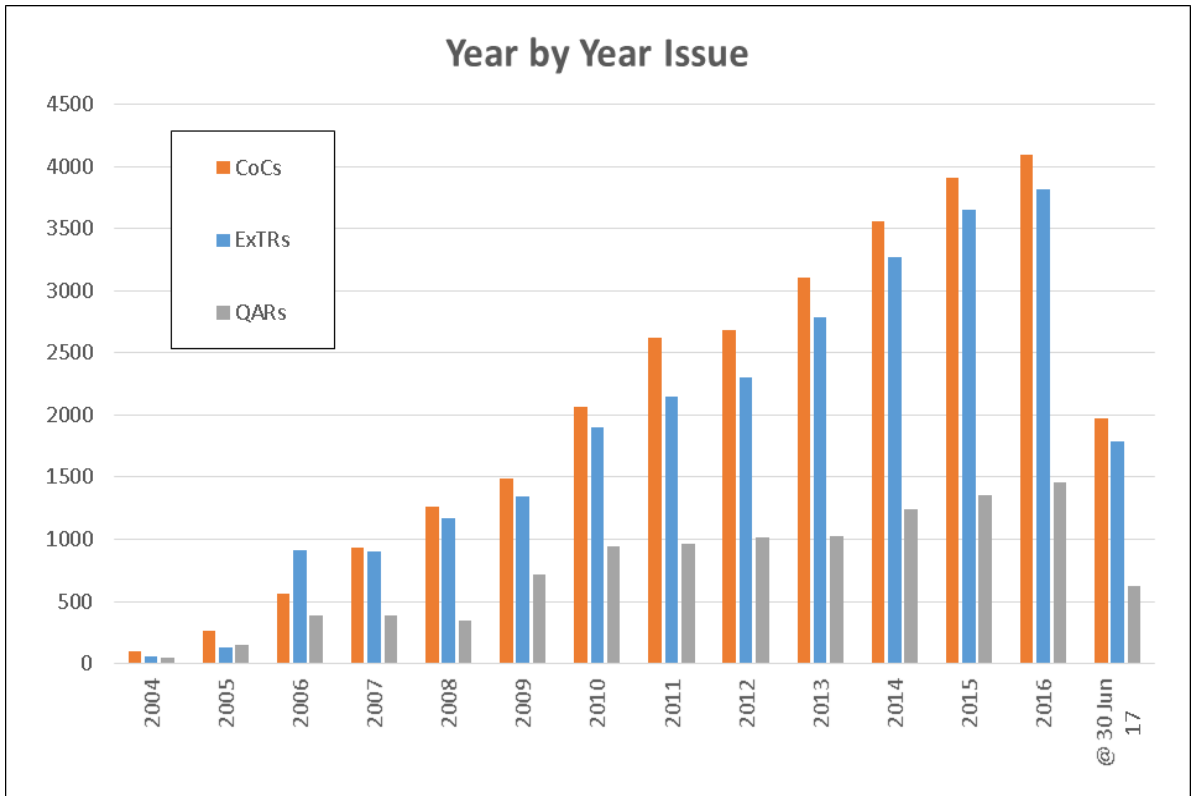


Figure 1B – Year-by-Year Growth of Issued IECEx CoCs, ExTRs and QARs for the IECEx Certified Equipment Scheme

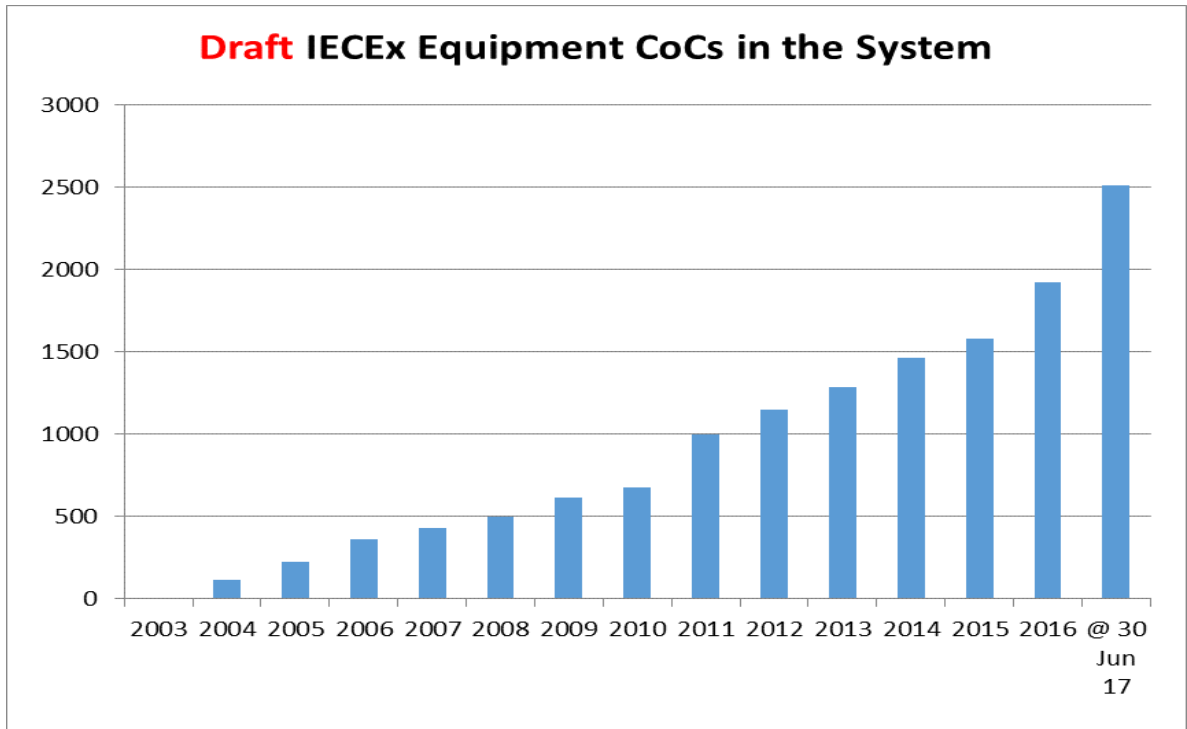


Figure 1C – Comparison of draft IECEX Equipment CoCs in the On-line System as indicative of future year on year growth of the Scheme

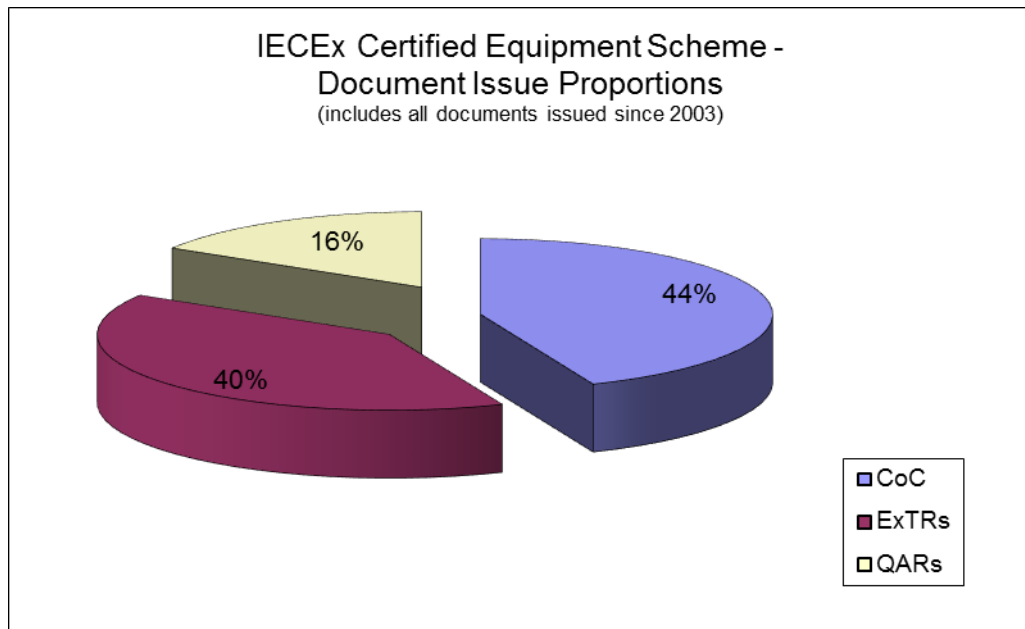


Figure 2 – CoCs, ExTRs, QARs Percentages

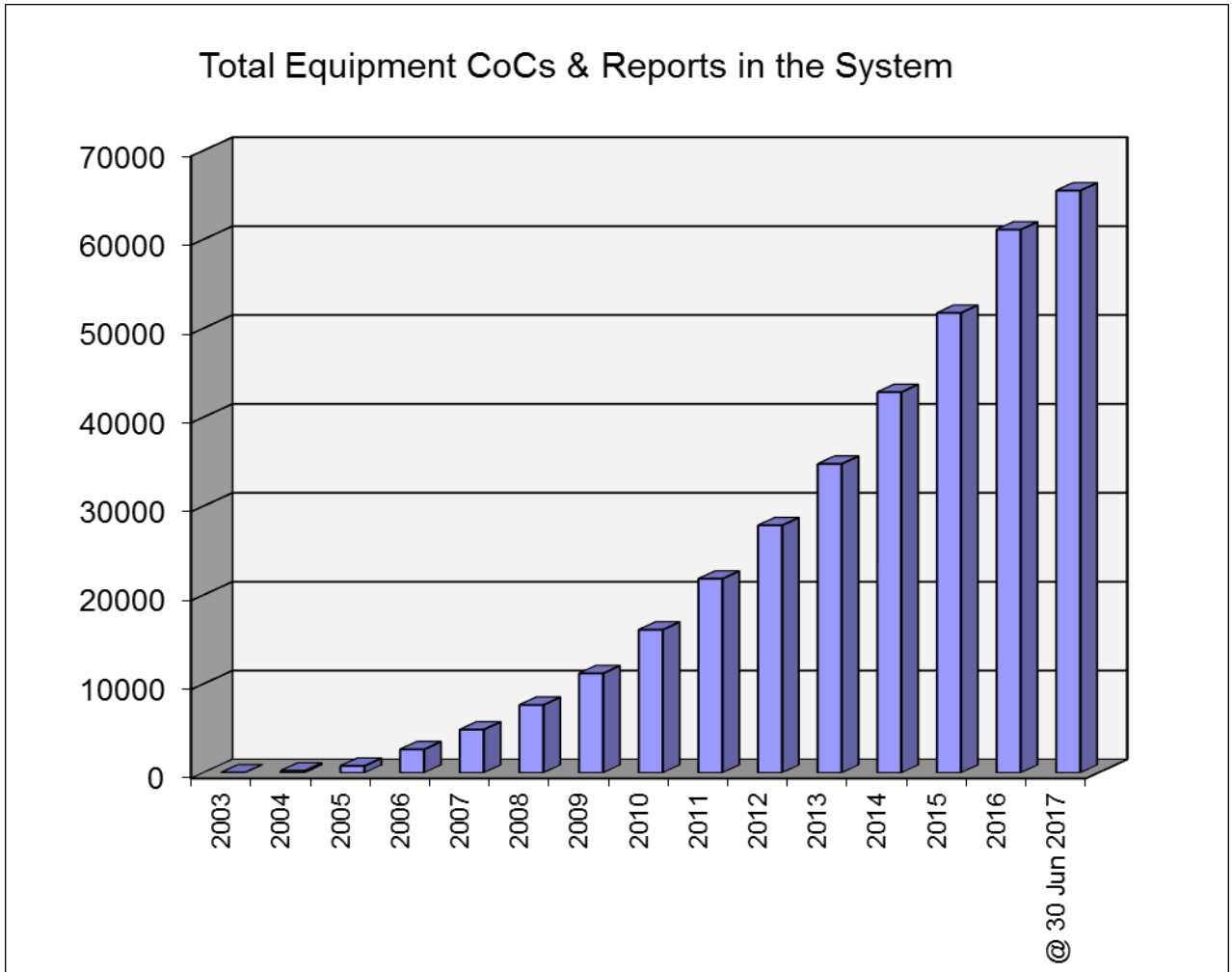


Figure 3 - Total IECEx Equipment Scheme CoCs, ExTRs and QARs at each Year end and to 30 June 2017.

3.2 IECEx 03 – IECEx Certified Service Facilities Scheme

Table 2 – Year End Figures IECEx 03 Certified Service Facilities Scheme

| Total number of Certified Services CoCs issued (commenced end 2007) | | | | |
|--|------------|------------|------------|------------------|
| Issue In the Year of | CoCs | FARs | Total | Drafts in System |
| 2007 | 3 | 4 | 7 | 0 |
| 2008 | 12 | 47 | 59 | 0 |
| 2009 | 15 | 33 | 48 | 9 |
| 2010 | 26 | 42 | 68 | 7 |
| 2011 | 31 | 53 | 84 | 8 |
| 2012 | 21 | 22 | 43 | 9 |
| 2013 | 26 | 61 | 87 | 12 |
| 2014 | 23 | 65 | 88 | 1 |
| 2015 | 27 | 41 | 68 | 6 |
| 2016 | 24 | 47 | 71 | 10 |
| @ 30 Jun 17 | 19 | 19 | 38 | 19 |
| Totals | 227 | 434 | 661 | |

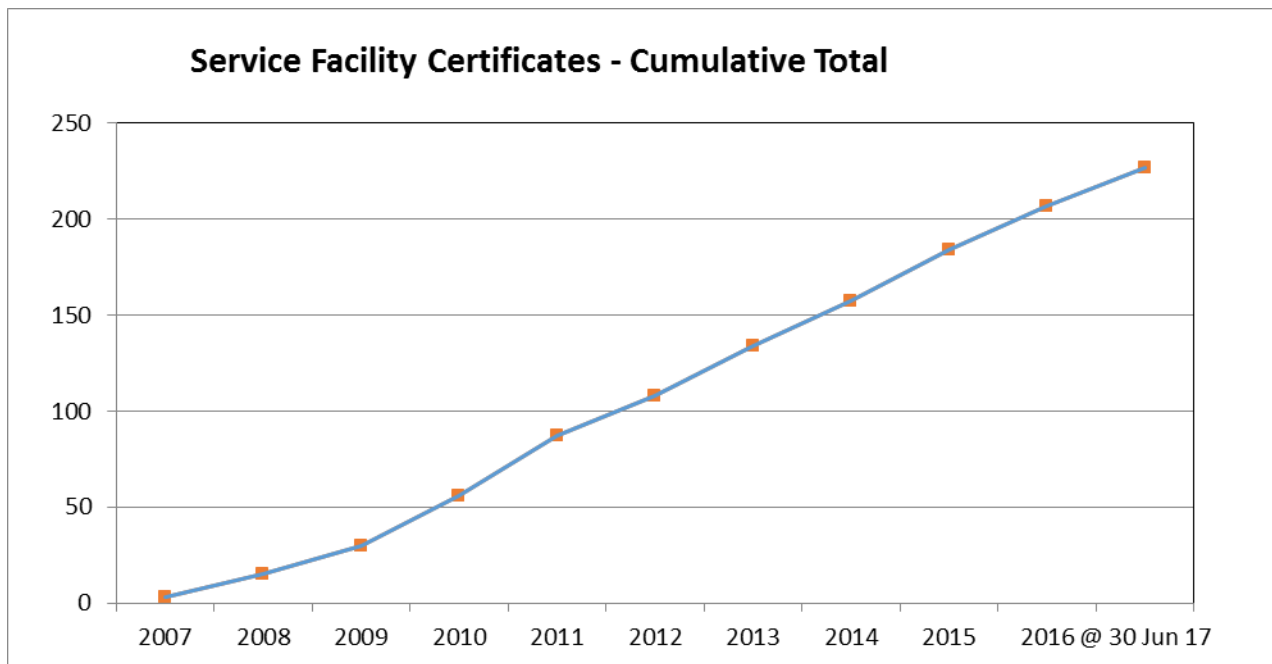


Figure 4A – Cumulative Total of IECEx Certified Service Facility Certificates at each Year end and to 30 June 2017

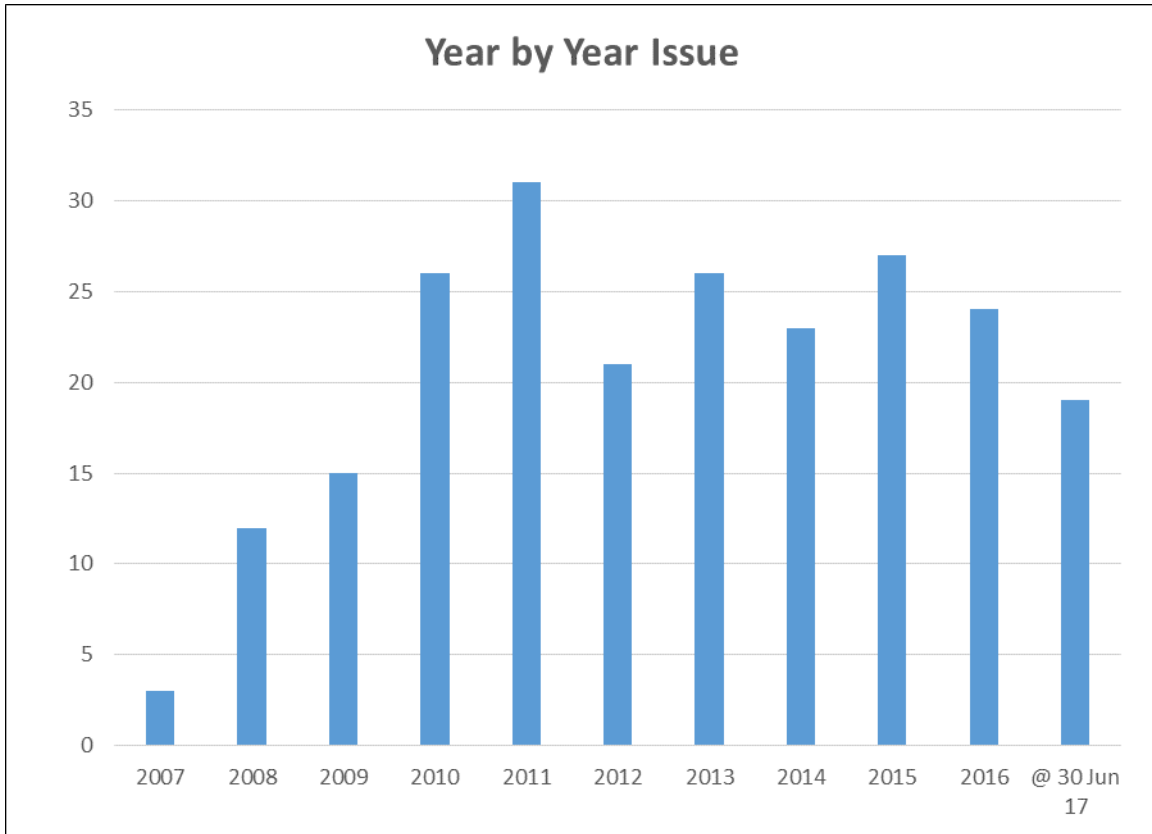


Figure 4B – Year-By-Year Growth of IECEx Certified Service Facility Certificates at each Year end and to 30 June 2017

3.3 IECEx 04 – IECEx Conformity Mark Licensing System

Table 3 – Year End Figures IECEx 04 Conformity Mark Licenses

| Total number Conformity Mark Licenses issued (System commenced 2009) | | | |
|--|-----------------|--|-------------------------------|
| Issue in the Year of | Licenses | Number of CoCs attached to Licenses | Total Drafts in System |
| 2009 | 4 | 10 | 0 |
| 2010 | 3 | 34 | 2 |
| 2011 | 7 | 83 | 3 |
| 2012 | 7 | 71 | 8 |
| 2013 | 2 | 2 | 9 |
| 2014 | 5 | 17 | 9 |
| 2015 | 2 | 2 | 9 |
| 2016 | 4 | 15 | 9 |
| YTD @ 30 June 2017 | 0 | 0 | 9 |
| Totals | 34 | 234 | |

3.4 IECEx 05 – Certificate of Personnel Competence Scheme

Table 4 – Year End Figures IECEx 05 Personnel Competence

| Total number CoPC Certificates issued (Scheme commenced late 2010) | | |
|---|--------------------------|------------------------|
| Issue in the Year of | CoPC & EFOC Certificates | Total Drafts in System |
| 2010 | 7 | 0 |
| 2011 | 64 | 0 |
| 2012 | 88 | 0 |
| 2013 | 153 | 3 |
| 2014 | 362 | 1 |
| 2015 | 327 | 8 |
| 2016 | 353 | 11 |
| YTD @ 30 June 2017 | 136 | 17 |
| Totals | 1488 | |

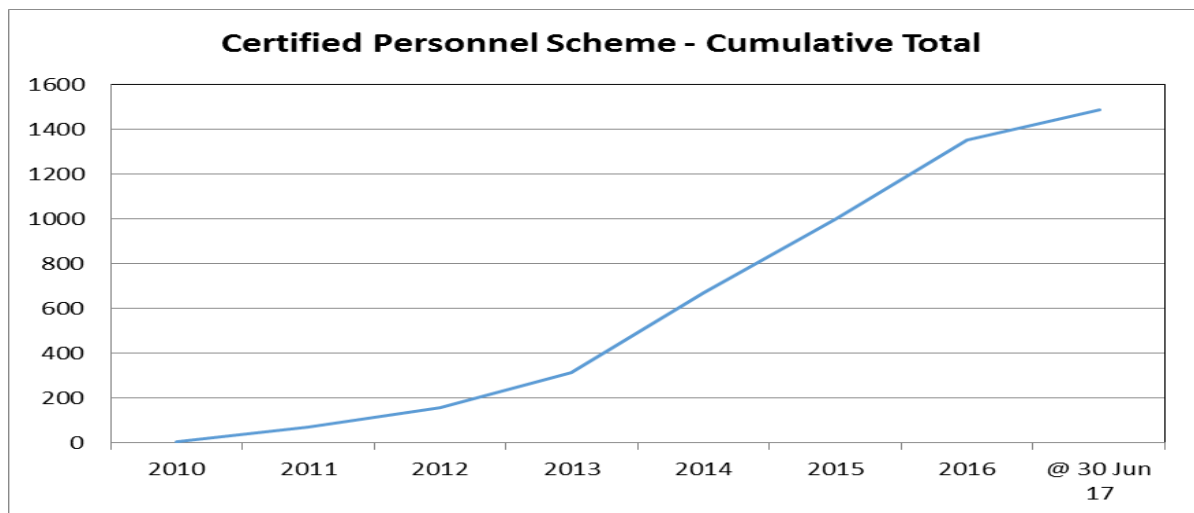


Figure 5A – Cumulative Total of IECEx Certified Personnel Certificates (CoPCs) at each Year end and to 30 June 2017

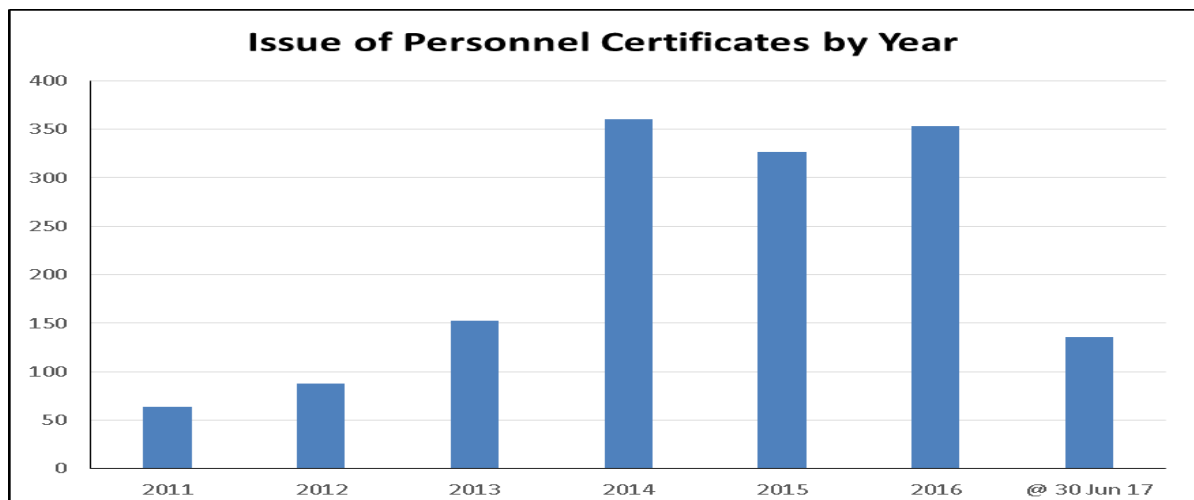


Figure 5B – Year-by-Year Growth of IECEx Certified Personnel Certificates (CoPCs) at each Year end and to 30 June 2017

4. Surveillance of the IECEx System

To ensure integrity of the System a range of measures and activities are undertaken within IECEx – these include:

- a) Initial Assessment and qualification of all ExTLs and ExCBs seeking to join IECEx
- b) Surveillance of all ExTLs and ExCBs (*annual confirmation of accreditation for those with accreditation and annual site visits for those without accreditation*)
- c) Re-assessment applied to all ExTLs and ExCBs involving assessment on site to review Testing/Certification facilities, capabilities, practices and review of Certificates, ExTRs and QARs files
- d) Mid-Term Surveillance Assessments (introduced in 2014) involving sample reviews of ExTRs and QARs
- e) In-built security features of the IECEx On-Line Certificate system - ie. ExCBs can only issue Certificates covering Standards within their scope
- f) IT Tools to aid in the management control of issued CoCs, ExTRs, QARs, FARs and PCARs
- g) “Out of Date” QAR listing to assist ExCBs manage and control the on-going surveillance due dates plus an Administrator feature for the Secretariat to monitor performance of all ExCBs.
- h) Review of On-Line System for new Certificates issued in 2016 and 2017 YTD – *the results of this review are outlined in 4.1 following.*

4.1 Review of Online CoCs, ExTRs and QARs for second half of 2016 and 2017 Year to Date (2017 YTD)

Introduction

Separate to the sites assessment visits for Initial, Surveillance, Re-Assessment and Mid-Term purposes, the Secretariat also conducts regular reviews of online IECEx Equipment Certificates of Conformity. Since the 2016 meetings in Umhlanga, random sampling of approximately 15% of all certificates originally issued or updated by ExCBs for the IECEx Certified Equipment, IECEx Certified Service Facility and IECEx Certified Person schemes was conducted as detailed below.

Objective

The objective of the Secretariat’s on-line review is to conduct a Quality check that the information on the sampled Certificates is correct and complete as compared to a defined criteria which include the following:

For Certified Equipment Certificates:

- a) Date of issue appropriate (i.e. not showing in the future)
- b) A Test Report number and File Reference included.
- c) Manufacturer name detail is consistent with their other certificates
- d) Manufacturer’s site street (not a PO Box) address given
- e) Any attached Annex has a reference to the CoC number
- f) Referenced Annexes are attached
- g) Conditions of Certification listed for “X” type Certificates
- h) Equipment description is clear and sufficiently detailed
- i) No major editorial mistakes (including linking to a draft ExTR)
- j) Correct links to valid ExTR and QAR
- k) Linked QAR is current
- l) Manufacturer on CoC matches ExTR
- m) Manufacturer on CoC matches QAR and QAR covers all manufacturing locations
- n) Standards listed on CoC matches Standards (including Edition #) on ExTR
- o) Scope of Certificate matches QAR and ExTR ExCB capability.
- p) Type of Protection Concept on CoC matches standards and QAR
- q) Where more than 1 issue exists that they are linked and changes explained on CoC
- r) Statement of Limitations is included in CoC for Component certificates (“U” type)

s) Unit Verification Certificates have been denoted with “V” and include Serial #(s)

For IECEX Certified Service Facility Certificates:

- a) CoC Date of Issue OK (not into the future)
- b) CoC and FAR addresses for applicant are valid (not PO Box)
- c) Scope of Services is valid
- d) Listed FAR is valid (ie. Is relevant and not expired)
- e) FAR Facility same as audited site
- f) FAR Details of change are specified (where appropriate)
- g) FAR specifies issuing ExCB
- h) CoC linked to multiple FARs (with some expired)

For IECEX Certified Person Certificates:

- a) Name on CoPC same as on PCAR
- b) CoPC is current / valid
- c) Scope of Competence Units same on CoPC as on PCAR
- d) Listed PCAR is valid (ie. Not expired)
- e) Photograph is “recognizable”
- f) CoC linked to draft PCAR

Certificates and Reports reviewed

The following quantities of IECEX Certificates (representing an approximate sample of 15% of issued Certificates) selected at random from all those published in the second half of 2016 and 2017 YTD were audited against the elements listed above:

- 827 x issued IECEX Equipment CoCs
- 31 x IECEX Service Facility CoCs (with zero issues found)
- 107 x IECEX Certified Person CoCs (with issues found with 12 (incorrect up-issue process))

The results of the audit of IECEX Certified Equipment Scheme Certificates follow:

| Item | Previously observed Certificate Deficiency as Review Criteria for issued Certified Equipment Certificates reviewed. | # of CoCs with Deficiency |
|------|---|---------------------------|
| A | Date of issue NOT appropriate (i.e. showing in the future) | 0 |
| B | A Test Report number or File Reference NOT included | 0 |
| C | Manufacturer name detail NOT consistent with their other certificates | 0 |
| D | Full Manufacturer’s site street address NOT provided (eg. a PO Box used) | 1 |
| E | Attached Annex(es) do NOT reference the CoC number | 2 |
| F | Referenced Annexes are NOT attached | 0 |
| G | “Specific Conditions of Use” details NOT specified for “X” type Certificates | 4 |
| H | Equipment description is NOT clear and sufficiently detailed | 18 |
| I | Major editorial mistakes | 3 |
| J | CoC is NOT correctly linked to valid ExTR and/or QAR (main issue observed was linking of an issued CoC to a draft ExTR) | 2 |
| K | Linked QAR is NOT current | 6 |
| L | Manufacturer on CoC does NOT match ExTR details | 3 |
| M | Manufacturer on CoC does NOT match QAR details and/or QAR(s) does NOT cover all manufacturing locations listed on CoC | 7 |
| N | Standards listed on CoC do NOT match Standards (including Edition #) on ExTR (main issue observed was CoC citing later Edition than ExTR) | 5 |
| O | Scope of Certificate exceeds QAR and ExTR issuing ExCB’s capability | 2 |
| P | Type of Protection Concept on CoC does NOT match standards and QAR | 3 |

| | | |
|---|--|---|
| Q | CoC Issues subsequent to Issue 0 are NOT linked and/or details of changes between Issues are NOT detailed on subsequent CoC | 1 |
| R | “Statement of Limitations” details NOT included in CoC for Component certificates (“U” type) | 7 |
| S | Unit Verification Certificates have NOT been denoted with “V” and/or do NOT include Serial #(s) for certified units of product | 0 |

In summary:

- Issued IECEx Certified Equipment Certificates with zero issues = **827**
- Issued IECEx Certified Equipment Certificates with one issue = **64**
- Issued IECEx Certified Equipment Certificates with multiple issues = **4**
- % of IECEx Certified Equipment Certificates audited with at least one issue = **7.7%**
- % of IECEx Certified Equipment Certificates audited with multiple issues = **< 1%**

Action by Secretariat:

The Secretariat have referred issues raised to the respective ExCBs for whom have been responsive to correct the issues raised. Some of the issues raised have led to inclusion in the ExTAG training session and discussions for 2017.

Conclusion

The results of this review show a worse result than for the same period in 2016 (where 5.3% of Equipment Certificates audited had one issue) and identifies a number of areas that require additional attention. The ExCBs observed to have issues with particular Certified Equipment Certificates have been very responsive in addressing these and proactive in taking action to prevent future recurrence.

5. IECEx Achievements since 2016 IECEx Meetings in Umhlanga

Significant achievements since the 2016 ExMC Meeting include:

a) Revised System + Scheme Rules

| Document No. | Title |
|-----------------|---|
| IECEX 01Ed 7.1 | IEC System for Certification to Standards relating to Equipment for use in Explosive Atmospheres (IECEX System) IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Basic Rules |
| IECEX 02 Ed.6 | IEC System for Certification to Standards relating to Equipment for use in Explosive Atmospheres (IECEX System) IECEx Certified Equipment Scheme covering equipment for use in explosive atmospheres – Rules of Procedure (Posted 161123) |
| IECEX 05 Ed 4.0 | IEC System for Certification to Standards relating to Equipment for use in Explosive Atmospheres (IECEX System) IECEx Scheme for Certification of Personnel Competence for Explosive Atmospheres – Rules of Procedure |

b) New and Updated Publications of IECEx Operational Documents and Guides

| Document No. | Title |
|---------------------|---|
| IECEX OD 503 Ed 4.0 | IECEX Scheme for Certification of Personnel Competence for Explosive Atmospheres - ExCB Procedures for issuing and maintaining IECEx Certificates of Personnel Competencies |
| IECEX OD 502 Ed 3.0 | IECEX Scheme for Certification of Personnel Competence for Explosive Atmospheres – Application for an IECEx Certificate of Personnel Competence (CoPC) and an IECEx Ex Facility Orientation Certificate (EFOC) - documentation and information requirements IECEx |
| IECEX OD 501 Ed 3.0 | IECEX Scheme for Certification of Personnel Competence for Explosive Atmospheres – Assessment procedures for IECEx acceptance of Certification Bodies (ExCBs) for the purpose of issuing and maintaining IECEx Certificates of Personnel Competence (CoPCs) |

| | |
|-----------------------|--|
| IECEX OD 280 Ed 1.0 | IECEX Certified Equipment Scheme – Guide to Certification of Non-electrical Equipment and Protective Systems |
| IECEX OD 233 Ed 2.0 | IECEX Certified Equipment Scheme - Assessment of Ex “s” Equipment |
| IECEX OD 035 Ed 2.1 | A procedure to generate, discuss, report and publish ExTAG Decision Sheets (2.1) |
| IECEX OD 017 Ed 4 | Drawing and documentation Guidance for IEC Ex Certification – for use by Manufacturers and ExTLS |
| IECEX OD 009 Ed 4 | Operational Document - Procedures for the Issuing of IECEx Certificates of Conformity, IECEx Test Reports and IECEx Quality Assessment Reports |
| IECEX OD 011-1 Ed 5.1 | Guidance on Use of the IECEx Internet based “On-Line” Certificate of Conformity System Part 1: General Information |
| IECEX OD 005-3 Ed 1.0 | IECEX Certified Equipment Scheme – IECEX Quality System Requirements for Manufacturers – Part 3: Supplementary requirements for non-electrical equipment to ISO/IEC 80079-34 Edition 1 |

c) 2017 series of IECEx Operational Meetings

The 2017 series of IECEx Operational Meetings were held in Hawarden, UK over 8th to 12th May 2017 hosted by CSA Group and the meetings included:

| Monday 8 th May | Tuesday 9 th May | Wednesday 10 th May | Thursday 11 th May | Friday 12 th May |
|-------------------------------|--------------------------------|-----------------------------------|----------------------------------|--------------------------------|
| ExSFC WG4 | ExMC WG1 and WG5 | ExPCC | ExMarkCo ----- ExMC WG13 | IECEX EXECUTIVE |
| ExSFC | | | ExTAG WG6 | |
| ExPCC WG1 Rules | ExPCC WG3 Question Bank | ExMC WG4 | | |
| ExPCC WG2 Units | ExPCC WG4 RTPP | | | |

Outcomes from these meetings served as input to the 2017 ExMC and ExTAG meetings.

6. Scheme Promotional Activities

As part of the IECEx promotion and marketing strategy, the IECEx Executive and Secretariat continue in delivering presentations at key events in addition to supporting IECEx experts in their national and regional promotion of IECEx. The following are examples of recent or upcoming promotional activities of the IECEx System:

- Key Note Address & presentations at Hazardous Area Conference, Brisbane, Australia – Sept 2016
- 2017 PCIC Middle East participation and presentation – February 2017
- Attendance at and Presentation to IEC TC31 Plenary Meeting, Sydney – March 2017
- 2017 IECEx International Conference, Shanghai, PRC – April 2017
- Industry Seminars on IEC and IECEx – Perth, Brisbane and Jakarta
- Monthly news articles in all IEC e-Tech on-line magazines, library maintained at http://www.iecex.com/news_releases.htm

- Regular news articles published in HazardEx prepared by IECEx experts including Thorsten Arnhold, Ron Sinclair, Jim Munro and others

The 2017 IECEx International Conference held in partnership with the United Nations, UNECE and the China IECEx National Member Body, CNCA is worth special mention.



IECEx is pleased to report on the successful event, 2017 IECEx International Conference which was held 11+12 April 2017 as a partnership event between IEC/IECEX, The UNECE and CNCA held at the Marriott Hotel in Shanghai, CN and regarded as a huge success.

While there were 424 registered participants we saw almost 400 actually attend the two day conference with 16 Sponsors.

Welcome and Key note addresses were given by the Deputy Director of CNCA, Liu Weijun as well the IEC Vice President, Ulrich Spindler. A recorded video message from the IEC General Secretary and CEO, Frans Vreeswijk was also played to the audience.

There were excellent presentations given, ranging from Regulations, Standards, Conformity Assessment to practical applications of Standards and IECEx and included end user feedback. An overview presentation from the TC 31 Chair Mark Coppler on TC 31 Standards and current and possible future work was well received. A representative from the United Nations, UNECE delivered a presentation on why UNECE endorses International Standards such as those from IEC TC 31 and the IECEx Schemes.

Presentations were given in English and Chinese with real-time translation being provided. An excellent Gala Dinner was hosted by one of our conference sponsors and provided an excellent opportunity for networking along with the lunch and coffee breaks. On Day two an Open Forum was conducted inviting questions from the audience to any and all our presenters. This proved very popular and actually ran overtime.

The conference website is maintained throughout 2017 with pdf copies of presentations available for download along with the list of sponsors.

This has been the 4th such event ran by IECEx and provides an excellent promotional opportunity for IEC, IECEx and the many companies and persons that hold IECEx Certification.

The IECEx Chairman, Executive and Secretariat remain available to provide any additional information on these items or assistance with the preparation of any presentations that Members may be involved with.

7. Secretariat and General Technical Administration

7.1 Day to day duties of the Technical Secretariat can be broadly categorized as:

- Processing applications and managing assessments of new bodies and re-assessment of existing bodies
- Processing the applications of Scope extensions, e.g. new editions of Standards and other changes, e.g. name changes of existing bodies along with their maintenance via surveillance and re-assessments
- Support to ExCBs in the day to day use of the IECEx On-Line CoC System
- Revision and up dating of IECEx Schemes rules and Operational Documents and forms
- IECEx Schemes development and Growth across all IECEx Schemes
- In conjunction with Chairman and Officers, IECEx System regular reporting to CAB and participation in CAB Working Groups
- Respond to general inquiries coming directly from industry (increasing)
- Day to day management of System finances, in conjunction with Treasurer and Executive

In noting the above, the Secretariat wishes to draw Members attention to the increased demands on the Secretariat in dealing with inquiries concerning Ex Certification and Approvals being received direct from the market.

The Secretariat Team consists of a mix of both Technical and Administrative Staff to cover the day to day management, technical and admin support required to maintain functioning of the IECEx System. To this point the Secretariat is pleased to note a new member to the team in Mr Mike Roy, joining late 2016 and coming with engineering qualifications and many years experience in the oil and gas industry.

7.2 As an indicator of the IECEx System development and growth, since the first Report card issued in 2008 IECEx Paris meetings, the following additional statistics are provided:

General items prepared and issued according to the day to day management and operation of the IECEx System are provided below with a comparison to the figures reported at the 2009, 2010, 2011, 2012, 2013, 2014, 2015 and 2016 presented in ExMC/544/R, and ExMC/621/R, ExMC/699/R, ExMC/749/R, ExMC/859/R, ExMC/938/R, ExMC/1008/R (updated for the full year of 2016) and ExMC/1159/R respectively.

| ITEM | 2010 (ExMC/621/R) | 2011 (ExMC/699/R) | 2012 (ExMC/749/R) | 2013 (ExMC/859/R) | 2014 (ExMC/938/R) | 2015 (ExMC/1008/R) as updated for full year | 2016 (ExMC/1159/R) as updated for full year | 2017 @ 30 June |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|---|---|-------------------|
| Committee Documents Prepared and Issued ¹ | 124 | 148 | 152 | 153 | 168 | 167 | 184 | 93 |
| Operational Documents (new or revised) | 13 | 13 | 5 | 18 | 21 | 11 | 8 | 2 |
| ExTAG Decision Sheets Issued | 6 | 6 | 6 | 11 | 5 | 19 | 2 | 1 |
| IECEx Guides (new or Revised) | 1 | 1 | 3 | 0 | 4 | 0 | 1 | 0 |
| IECEx Scheme Rules (new or revised) | 3 | 3 | 2 | 5 | 3 | 2 | 2 | 0 |
| Others, e.g. | 14 | 32 | 23 | 11 | 17 | 15 | 12 | 6 |

| | | | | | | | | |
|--|------------|------------|------------|------------|------------|------------|------------|------------|
| News articles | | | | | | | | |
| Total IECEX Items issued ² | 161 | 203 | 191 | 198 | 218 | 214 | 209 | 102 |

¹ Comprises ExMC, ExTAG, ExMarkCo, ExPCC

² Total excludes other items such as reports to CAB and participation in CAB and related Working Groups

7.3 E-mail Traffic, handled by Secretariat (excluding those dealt with by IECEX Chairman, Officers, WG Conveners, Members and Assessors):

The following level of e-mail traffic was handled by the IECEX Secretariat and does not include additional mails dealt with by the IECEX Chairman, Officers and Assessors. These figures are provided as a guide to IECEX Members of the levels of IECEX activity and show a constant level of e-mails in comparison with 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2017 figures.

| ITEM | 2010 (ExMC/621/R) | 2011 (ExMC/699/R) | 2012 (ExMC/749/R) | 2013 (ExMC/859/R) | 2014 (ExMC/938/R) | 2015 (ExMC/1008/R) as updated for the full year | 2016 (ExMC/1159/R) as updated for the full year | 2017 @ 30 June |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|--|--|----------------------|
| Total E-mail Traffic of the IECEX Secretariat | 18,200 | 18,880 | 19,660 | 21,055 | 22,812 | 23,106 | 24,872 | 13,194 |

* Out of office or other miscellaneous e-mails have been filtered and are excluded from above figures

7.4 Management of Assessments + Applications for Scope extensions – all IECEX Schemes.

| ITEM | 2009 (ExMC/544/R) | 2010 (ExMC/621/R) | 2011 (ExMC/699/R) | 2012 (ExMC/749/R) | 2013 (ExMC/859/R) as updated for the full year | 2014 (ExMC/938/R) as updated for the full year | 2015 (ExMC/1008/R) as updated for the full year | 2016 (ExMC/1159/R) as updated for the full year | 2017 YTD |
|------------------------------|----------------------|----------------------|--|--|---|---|--|--|--|
| Site assessments | 17 | 14 | 17 | 23 | 19 | 25 | 31 | 12 | 9 |
| Scope extensions | 37 | 42 | 89 Standards / Units 43 Applications | 81 Standards / Units 38 Applications | 61 Standards / Units 30 Applications | 46 Standards / Units 28 Applications | 188 Standards / Units 104 Applications | 28 Standards / Units 14 Applications | 49 Standards / Units 20 Applications |
| Mid-term Surveillance Audits | | | | | | 6 | 13 | 4 | 6 |

The above Table outlines the number of IECEX site Assessments conducted on Ex Certification Bodies and Ex Test Laboratories for Initial, Surveillance, Re-assessments and Mid-term purposes.

Following the ExMC Decision during the 2013 Fortaleza meeting to introduce a “mid- term” surveillance audits of ExCBs and ExTLs, the IECEX Secretariat commenced the implementation of this decision during 2014 using procedures and criteria detailed in IECEX Operational Document OD 003-2. Members are reminded that these mid-term surveillance audits are focused on the re-assuring of confidence in the technical capability of the Test Lab and Certification Body by focusing the assessment on issued ExTRs and QARs as well as the Certificates issued. The main purpose is to establish whether or not the scheduled five year re-assessment should be brought forward on the basis of any issues identified OR that it may remain as originally scheduled.

The Secretariat is pleased to report on the excellent cooperation with ExCBs and ExTLs noting that of the Mid-term assessments conducted to date there are no issues raised that require notification to ExMC other than to advise that following Mid-term surveillance visits the technical assessors have not raised any major issues that bring into question either the on-going acceptance of the ExTL or ExCB nor the need to bring forward the five year planned re-assessment. Other Mid-term assessments are currently underway.

8 Finances

8.1 Overview

The sound financial performance of IECEX is reported in the 2016 Audited Accounts, **ExMC/1220/DV**. In summary income and expenditure were generally according to the approved 2016 Budget, with a final result to achieve an annual Surplus of CHF 184'295 being above budget predictions. The IECEX General Reserve at end of 2016 now sits at CHF 1'913'036.

8.2 Invoices Issued / Processed since 2016 ExMC Meeting

The day to day management of financial management activities for the IECEX system are detailed in the following table of invoices and statements being issued as well as monitoring the receipt of payments

| Documents | Reported for 2012 | Reported for 2013 | Reported for 2014 | Reported for 2015 | Reported for 2016 | Reported for 2017 YTD |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|
| Invoices issued – MB Annual Fees | 33 | 33 | 33 | 36 | 37 | 40 |
| Statements Issued – CoC Fees | 77 | 83 | 89 | 100 | 108 | 54 |
| Invoices Issued – CoC Fees | 69 | 75 | 76 | 86 | 92 | 48 |
| Invoices Issued – Application Fees | 3 | 2 | 6 | 19 | 15 | 2 |
| Invoices Issued – Assessment Fees | 26 | 14 | 18 | 48 | 35 | 8 |
| Invoices Issued – Conference Sponsor | 0 | 0 | 0 | 0 | 0 | 13 |
| Invoices Issued – RTP Annual Fees | 0 | 0 | 0 | 0 | 0 | 12 |
| Invoices processed / Central Approval – Assessor Charges | 50 | 50 | 55 | 53 | 50 | 14 |
| TOTAL Invoices issued and processed | 258 | 257 | 277 | 342 | 337 | 191 |

In noting the following:

- overall response to on-time payment of invoices by Members generally good

We are pleased to advise that there are no specific issues concerning finance at this time. A further update report will be given during the 2017 ExMC meeting by the Treasurer.

9 Concluding Remarks

IECEX continues to enjoy significant and sustained growth in both exposure and demand for its services. Despite impressive annual growth and the following indicators of continued growth in the future:

- Growth in number of Certificates and Reports
- Growth in income, mainly from certificate fees

IECEX continues to maintain a conservative approach to budgetary planning.

The instant and “On-Line” nature of the IECEX Certification system based on electronic format master controlled certificates coupled with the increased industry involvement in the Scheme’s operation are seen as a significant drivers of interest and demand for IECEX. It is worth noting that Certificates issued by ALL IECEX Certifiers are found in the one single location as opposed to the need to search individual ExCB websites.

The continued growth and success of IECEx is founded on the solid participation by various sectors of industry in the day to day management of the IECEx System via participation in ExMC, its Committees and the various Working Groups. Over recent years we have seen a growing level of this industry participation, especially from end-users and also regulators as well as manufacturers and Ex repairers. This participation and contribution is a key ingredient to the success that the IECEx community continues to enjoy.

While acknowledging the growth in demand for IECEx Services, maintaining credibility of the IEC and IECEx Brand is paramount and is on “top of mind” of both the IECEx Executive and the Secretariat.

To this point the Secretariat acknowledges, with gratitude, the diligent leadership of the IECEx Chairman, supported by the IECEx Executive along with Conveners of the many expert Working Groups and their experts all of whom are vital to enable IECEx to continue in its quest to serve the international Ex community.

Chris Agius
IECEx Executive Secretary
August 2017

Annex A – Report from the IECEx Chair, Dr Arnhold on his visit and evaluation of the IECEx Sydney Secretariat Office.



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Annex A to 2017 IECEx Report Card

**INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC) SYSTEM FOR
CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR USE IN
EXPLOSIVE ATMOSPHERES (IECEX SYSTEM)**

Circulated to: IECEx Executive

Title: IECEx Chairman's report on visit to the Secretariat office in Sydney

Introduction

This document contains brief report from the IECEx Chairman, Dr Thorsten Arnhold following his visit to the IECEx Secretariat Office during April 2017 and is presented for the information of the IECEx Executive.

Address:
Level 33, Australia Square
264 George Street
Sydney NSW 2000
Australia

Contact Details:
Tel: +61 2 46 28 4690
Fax: +61 2 46 27 5285
e-mail: info@iecex.com
<http://www.iecex.com>



Overview

As IECEx Chairman, I organised a visit to the IECEx Secretariat Office in Australia as part of my trip to participate in the IECEx 2017 Conference in Shanghai.

Office locations visited included:

Central Sydney Office at Level 33, Australia Square, 286 George Street Sydney, NSW. And

Suburban Office located at level 2 The Vue Building, 1 Centennial Drive Campbelltown, NSW

The suburban office being the larger office, houses files and records along with Computer server and systems. The Central Sydney Office provides a ready Sydney presence along with reception facilities for the occasions where the office may not be attended and is located close to Standards Australia offices, the AU Secretariat for the AU National Committee to IEC and Member Body of the IECEx.

Both Offices are staffed with the bulk of Staff located at the Suburban office with staff coming together on at least 2 occasions per week but yet with ready communication. This arrangement provides both a cost effective solution for housing the Secretariat to prevent paying high costs of Central Sydney rent as rent in the suburbs is much cheaper yet there is still a Central Sydney location available with additional facilities on a needs basis.

Both office locations were found to be well equipped and also well secured with security in place.

Financial matters are well controlled and overseen by the IECEx Treasurer along with the IEC Finance department and overall by the IEC General Secretary & CEO. These are reported in the annual audited accounts.

Specific Points to note

Records

A check thru the IECEx Secretariat internal network revealed that the network drive is known as the "P Drive" with all staff gaining access.

A check was made against documents presented as reports to ExMC and records retained by the Secretariat and this was found to be very good. As examples, a check was made of the report given to ExMC for the scope extensions allocated to ExCBs and ExTLs via submission of the ExMC/251B/Q form (eg ExMC/1210/DV Scope ExtensionAssessment Report for TÜV Nord) and the records to support these were found on the P Drive network.

Other records such as voting records from the ExMC were found and located on the p Drive network along with copies of all ExMC and ExTAG Documents, which also appear on the IECEx website.



BackUp Systems

A backup system is employed via the following separate systems:

1. BackUp daily by the IT provider done remotely and controlled by the IT service provider
2. Secondary daily backup Off-site is done via the use of external hard drives which are rotated on a daily basis with one of the staff taking the backed up drive home with them and then rotated the following day
3. Permanent backup of the P Drive, conducted at least weekly, with stored information stored indefinitely.

Staff

There was an opportunity to meet with most of the Secretariat staff including the new member Mike ROY whom attended the 2017 IECEx Conference in Shanghai.

IT Systems

IT systems employed provide by local and remote networking via VPN password system. Computers and Server systems appear to be up to date and noted good broadband Internet available at the time of the visit.

There are 3 telephone lines used 1 as a main line, the second as a back up in case line 1 is occupied and a third with a fax machine. Noting not many faxes received except some from Romania

IECEX Assessments of ExCBs and ExTLs

A central system for the scheduling and recording of initial, annual surveillance, mid term and re-assessments is employed and located on the P drive and included in the backup systems.

It can be seen that the scheduling of due assessments is up to date and good recording is also in place.

The system of seeking assessors to undertake assessment work and the allocation of work was noted and well managed.

There does appear to be a shortage of assessors, especially assessors coming from ExCBs and ExTLs and it was agreed that this needs some attention by all members of the IECEx. This will become more urgent as we see more bodies and the take up of more new standards such as the 80079 series of non electrical standards.



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The Secretary's role in managing the assessments including the independent review of assessments reports provided by assessors is clear and well controlled. Examples of files were noted showing where the Executive Secretary himself is involved in the reviewing of assessor reports including the On-Site assessment reports, TCDs and follow up actions between the ExCB/ExTL and assessment teams. This reviewing seems appropriate noting the various matters raised by the Secretary to the Assessment teams.

Conclusion

Based on the site visit and detailed examination of records and interview with Staff, I find that all staff have a good knowledge of the operation of the IECEx System and its schemes and that the IECEx Secretariat is working to the best interests of the IEC and IECEx.

Of special note is the management and recording of matters relating to the IECEx assessment process of ExCBs and ExTL that gives confidence that the requirements of our rules and ODs are being followed.

I am therefore pleased to report that the site visit provides us with the re-assurance that our Secretariat is conducting affairs in accordance with the requirements of our rules and expectations of the Membership.

Dr Thorsten Arnhold
IECEX Chair

April 2017