Conformity Assessment
“a closer look”

National Board General Meeting

Jon Labrador
May 7, 2018
ASME Boiler and Pressure Vessel Code

12 Sections
32 volumes
16,500 pages
Updated every 2 years
Boilers and pressure vessels are used all over the world in many different industries:

7,348 ASME Certified Companies
12,975 ASME Certificates Issued
78 Countries

In order to ensure safety, quality, & operational efficiency of this equipment, regulations & codes have been developed, some of which require independent inspection & certification to achieve compliance.
The ASME Advantage

• The maturity of our Standards – over 100 yrs of consensus developed content that advances with technology and ensures high quality products and a commitment to overall public safety

• Globally recognized and Accepted – Conformity Assessment requirements that aid manufacturers in the development and implementation of the Standard through a Quality System in the manufacturing of boilers, pressure vessels, and pressure piping, etc.
The ASME Advantage

• **Third Party Oversight ( Authorized Inspection Agencies) –** An inspection force, independent of the manufacturer and the end purchaser qualified through the National Board, ensuring compliance to the Standard and supporting the manufacturer’s public commitment to quality and safety.

• **Expert Auditors –** Our qualified auditing force has over 22 years experience on average (per auditor) focusing on the auditing of ASME certification and accreditation programs.
ASME Committee Support System

Board on Conformity Assessment

- CBPVCA
- CNC
- QAI
- BPE SC
- RTP SC
- Y14 SC
- ANDE

27 ASME Conformity Assessment Committees
250+ ASME Committee Volunteers across all industries

All participating in the vigorous protection of the ASME Mark!
Benefits ASME Certification

Public
- Protects Public Safety & Welfare

Government
- Supports policies on public safety & fair trade

ASME Conformity Assessment Programs

Public Safety Facilitating Trade Open/Transparent Process

Purchasers
- Supply chain management: Increase Choices Reduce Cost

Manufacturers
- A trusted worldwide brand allowing access to a global market
Cooperative protection of the ASME Mark
CA Global Growth
Certified Boiler & Pressure Vessel Manufacturers

Data as of 2017-06-30

- US
- International
- Total
Certified Manufacturers – China, Italy & India

Data as of 2017-06-30
## CA Company Breakdown by Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>3,093</td>
</tr>
<tr>
<td>China</td>
<td>943</td>
</tr>
<tr>
<td>Korea</td>
<td>400</td>
</tr>
<tr>
<td>Canada</td>
<td>319</td>
</tr>
<tr>
<td>Italy</td>
<td>292</td>
</tr>
<tr>
<td>India</td>
<td>256</td>
</tr>
<tr>
<td>Germany</td>
<td>243</td>
</tr>
<tr>
<td>Mexico</td>
<td>183</td>
</tr>
<tr>
<td>UAE</td>
<td>118</td>
</tr>
</tbody>
</table>

Data as of 2017-12-31
Conformity Assessment Outreach

Certification 360 Workshops – Existing CH’s, Potential CH’s, Ministries, Agencies, Government Officials

- Reach potential Certificate Holders
- Retention of existing CH’s
- “Demystify” the auditing process
- Establish proper auditing preparations
- Establish the ASME Value Proposition vs. competing programs vs. no program
- Explain why ASME programs are “best in class” and “the gold standard”
Conformity Assessment Outreach

Certification 360 Workshops – Existing CH’s, Potential CH’s, Ministries, Agencies, Government Officials

April 2015 Busan, Korea
May 2015 Shanghai, China
Apr 2016 Mumbai, India
Apr 2016 Shanghai, China
May 2016 Salta, Argentina
Aug 2016 Columbus, OH
Sep 2016 Bergamo, Italy
Jan 2017 Mumbai, India
Mar 2017 Ravenna, Italy
Apr 2017 Nanjing, China
May 2017 Mendoza, Argentina
Sep 2017 Seoul, Korea
Oct 2017 Dubai, UAE
Oct 2017 Milan, IT
Dec 2017 Bariloche, Argentina
Jan 2018 Dubai, UAE
Mar 2018 Rome, Italy
Apr 2018 Madrid, Spain
*May 2018 Kazakhstan
Conformity Assessment Outreach
Certification 360 Workshops – Existing CH’s, Potential CH’s, Ministries, Agencies, Government Officials
Conformity Assessment Operations

CERTIFICATION LIFECYCLE

APPLICATION → CERTIFICATION → RENEWAL

351 CHECKPOINTS PER APPLICATION

CA CONNECT
CA Operations: Scheduling

24 Factors

Application Type
Authority Conducting Review
Scope / Certificates
Hotel
Airport
Distance from Airport
Distance from Hotel
Investigation/Follow-up/Re-review?
Company Availability
AIA Availability
National Board Coordination
Jurisdiction Availability

Team Leader Availability
Team Leader Skillset / Qualifications
Team Member Skillset
Plant Locations
Additional Locations
Company Grouping
Previous Team / Team Leader
Team Size
Car Rental / Size
Required Visas
State Department location report
Translation services / availability

BPV REVIEW
SURVEY
CA Operations: Scheduling

CONSULTANT MONTHLY SCHEDULE

ASME CONSULTANT 1

BPV REVIEW  →  BPV REVIEW  →  WK 1

NUCLEAR SURVEY  →  BPV REVIEW  →  WK 2

BPV RE-REVIEW  →  AIA SURVEY  →  WK 3

UNAVAILABLE  →  WK 4

6 REVIEWS/SURVEYS
<table>
<thead>
<tr>
<th>Schedule Grouping</th>
<th>Monthly Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASME Consultant 1</td>
<td>Monthly Schedule</td>
</tr>
<tr>
<td>ASME Consultant 2</td>
<td>Monthly Schedule</td>
</tr>
<tr>
<td>ASME Consultant 3</td>
<td>Monthly Schedule</td>
</tr>
<tr>
<td>ASME Consultant 4</td>
<td>Monthly Schedule</td>
</tr>
<tr>
<td>NB Consultant 1</td>
<td>Monthly Schedule</td>
</tr>
<tr>
<td>NB Consultant 2</td>
<td>Monthly Schedule</td>
</tr>
<tr>
<td>Jurisdiction 1</td>
<td>Monthly Schedule</td>
</tr>
<tr>
<td>AIA 1</td>
<td>Monthly Schedule</td>
</tr>
<tr>
<td>AIA 2</td>
<td>Monthly Schedule</td>
</tr>
</tbody>
</table>

24 Reviews/Surveys
CA Operations: Scheduling

MONTHLY SCHEDULE

120 REVIEWS/SURVEYS
CA Operations: Scheduling

CANCELLATIONS/RESCHEDULING

ASME COSTS:
- Airfare
- Travel Hours
- Car Rental
- Hotel
- Travel Expenses
- Staff Hours

ASME CONSULTANT 1

BPV REVIEW

NUCLEAR SURVEY

BPV RE-REVIEW

AIA SURVEY

UNAVAILABLE

WK 1

WK 2

WK 3

WK 4
CA Operations: Scheduling

MONTHLY SCHEDULE

120 COMPANIES

44 ASME CONSULTANTS

34 AIA’S

7 CANCELLATIONS & RESCHEDULE REQUESTS

2 1/2 DEDICATED SCHEDULING STAFF

NATIONAL BOARD

JURISDICTIONS

10 COMMITTEE ACTIONS
CA Operations: Finance

Finance Checkpoints

Deposit Confirmation  Refunds  Survey Approval Check
Cert & Stamp Fees  Pro Forma Invoicing  Billing Information
Extension Requests  Final Invoicing  Dynamics GP Transfer
Cancellation Fees  Expense Breakdown  Revenue recognition
Re-Reviews  IBAN/SWIFT  Expense recognition
Follow-ups  National Board Notice  Cert Issuance approval
Unannounced Audits  Expense Report Trail  Balance Due Notice
Name Changes  Hours Check  Vendor fund distribution
Location Changes  Travel Hours Check  Vendor ID Management
Temporary Locations  Manual Prep Check  Bank reconciliation
Wire Confirmations  QRR Approval Check

CERTIFICATE ISSUANCE
CA Operations: Finance

EXPENSE REPORT BUNDLE

EXPENSE REPORT 1
EXPENSE REPORT 2
EXPENSE REPORT 3
EXPENSE REPORT 4
EXPENSE REPORT 5
EXPENSE REPORT 6

6 REVIEWS/SURVEYS
CA Operations: Finance

EXPENSE REPORT BUNDLE

24 REVIEWS/SURVEYS
Strength in all three components needed to maintain the ecosystem!
CHALLENGES AHEAD

• CA Connect & C&S Connect are extremely outdated and require replacement soon.
• “ISO” means international
• Heavy promotion of RCCM ISO 19443 by AREVA which competes against NQA-1 and Supply Chain Certification. Use of free training and orientation of their standard to the international workforce.
• Russian, Korean, Chinese, Canadian Nuclear design specs and power plant construction subsidies.
• New generation of engineers unfamiliar with the ASME Code
CHALLENGES AHEAD

• Government funding provided in other countries for the development of regional certification programs.

• KEPIC heavily promoting their Nuclear Certification Program outside of Korea, offering free training and orientation on their standards to international workforce.

• Technology is advancing quicker than ASME can produce a standalone standard and an associated certification program (i.e. 3D printing of nuclear components).

• Cost of ASME Certifications vs. competing certifications
1. Continue with successful C360 Workshops
2. Maintain our strong partnerships with the Jurisdictions, NBBI, & AIA’s
3. Continue aggressive outreach with Ministries, Agencies, Gov’t Bodies
4. Bring the marketing push to the end user through “Demand the Mark” campaigns. Have our CH’s help us spread the message!
5. Work with ASME L&D for availability of Standards Training Globally
ASME CERTIFICATION COSTS

1. Reduce expenses by increasing regional auditors
2. Tightening financial guidelines for expense reimbursement
3. Develop regional pricing models / reducing overhead
4. Determine whether growth at the expense of short term revenue is our path forward
MAINTAIN HIGH QUALITY

1. ISO 17065 compliant by FY’21
2. ISO 17024 compliant by FY’21
3. Sound committee processes for CA and Standards
4. Code verification program
20th CENTURY PROCESSING SOFTWARE FOR THE 21ST CENTURY

1. Automate an additional 25% of process checkpoints
2. True “press of the button” analytics
3. Real-time performance dashboards and metrics
4. Robust reporting capabilities
5. “Smart” processing and maintenance
6. Dramatic increase in customer performance / service
7. Full integration with AMS upon Personify replacement
8. Full integration with finance system upon replacement
9. ASME.org upgrade
Manufacturers want that Global recognition of their commitment to public safety and high quality.

The best way is to certify your process

For End Users the best overall value for the life of your purchased pressure retaining item is to purchase items bearing the ASME Certification Mark.

Questions?

Jon Labrador labradorj@asme.org