345 Carlingview Drive
Toronto, Ontario
CANADA M9W 6N9
Tel.: 416.734.3300
Fax.: 416.231.1626
Toll Free: 1.877.682.8772
www.tssa.org

June 06, 2018

Jerome Grant
DEZURIK
250 RIVERSIDE AVE N
SARTELL MN 56377
US

Service Request Type.: BPV-National AB
Service Request No.: 2300238
Your Reference No.:
Registered to.: DEZURIK

Dear Jerome Grant,

Please find enclosed the original response from AB, registered under the CRN No.: 0C00707.52.

As all jurisdictional fees are handled by the Technical Standards and Safety Authority (TSSA), you do not pay any jurisdictions directly.

Should you have any questions or require further assistance, I will be happy to assist you.
For general enquiries, please contact a Customer Service Advisor at 1.877.682.TSSA (8772) or e-mail customerservices@tssa.org. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

Tanya Francis
Administrative Assistant_ BPV Engineering
Tel. : 416-734-3423
Fax : 416-231-6183
Email :tfrancis@tssa.org

ABSA
the pressure equipment safety authority

9410 - 20 Ave N.W.
Edmonton, Alberta, Canada T6N 0A4
Tel: (780) 437-9100 / Fax: (780) 437-7787

May 22, 2018

Attention: Joanna Karpinski
TECHNICAL STANDARDS & SAFETY AUTHORITY
345 CARLINGVIEW DRIVE
TORONTO, ON M9W 6N9

Email: JKarpinski@tssa.org

The design submission, tracking number 2018-03023, originally received on May 09, 2018 was surveyed and accepted for registration as follows:

CRN : 0C00707.52 **Accepted on:** May 22, 2018

Reg Type: ADDITION TO ACC. FITTING **Expiry Date:** May 01, 2028

Drawing No. : SCOPE VALVES: BAW,BOS-US,PEC, PEF As Noted

Fitting type: VALVES

Design registered in the name of : DEZURIK INC

The registration is conditional on your compliance with the following notes:

As indicated on AB-41 Statutory Declaration form and submitted documentation, the code of construction is other engineering analysis.

This registration is valid only for fittings fabricated at the location(s) covered by the QC certificate attached to the accepted AB-41 Statutory Declaration form.

This registration is valid only until the indicated expiry date and only if the Manufacturer maintains a valid quality management system approved by an acceptable third-party agency until that date.

Should the approval of the quality management system lapse before the expiry date indicated above, this registration shall become void.

Valves designed to AWWA standards are excluded from this registration as they are not subjects to Alberta pressure equipment regulation.

An invoice covering survey and registration fees will be forwarded from our Revenue Accounts.

Enclosed are stamped prints for your reference.

If you have any question don't hesitate to contact me by phone at (780) 433-0281 ext 3330 or fax (780) 437-7787 or e-mail grynchuk@absa.ca.

Sincerely,

GRYNCHUK, MILLA, P. Eng.
DOP Cert. No. D00005217

Alberta Municipal Affairs

ABSA
the pressure equipment safety authority

AB-41 2016-01

STATUTORY DECLARATION
Registration of Fittings

In this space, show facsimile of manufacturer's logo or trademark as it will appear on the fitting.

DeZURIK
APCO | HILTON

I, Jerome D Grant, P.E. (name of applicant), Engineering Industry Standards Manager (position title) (must be in a position of authority)

of DeZURIK, Inc. (name of manufacturer)

located at 250 Riverside Ave N, Sartell MN 56377 (plant address)

do solemnly declare that the fittings listed hereunder, which are subject to the Safety Codes Act (check one)

☒ comply with the requirements of See product design summaries (title of recognized North American Standard) which specifies the dimensions, materials of construction, pressure/temperature ratings and identification marking of the fittings, or

☐ are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with _____ (title of code of construction or other applicable document) as supported by the attached data which identifies the dimensions, materials of construction, pressure/temperature ratings and the basis for such ratings, and the marking of the fittings for identification.

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified by the following authority, TUV as being suitable for the manufacture of these fittings to the stated standard. The fittings covered by this declaration, for which I seek registration, are

valves (brief description of fittings)

In support of this application, the following information, calculations and/or test data are attached:

See detail in each product section of the application. Verification support data includes technical bulletins, wall thickness comparison to North American industrial standards and Finite Element Analysis.

DECLARED before me at Sartell (city) in the State of Minnesota (province or state)

this 13 Th day of April (Month), 2018 (Year)

WAYNE D. SCHMITZ
NOTARY PUBLIC
MINNESOTA
My Commission Expires Jan. 31, 2020

(print) Wayne Schmitz (a Commissioner of Oaths or Notary Public)

(sign) _____ (a Commissioner of Oaths or Notary Public)

_____ (signature of applicant)

For ABSA Office Use Only:

NOTES: _____

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Clause 4.2, and is accepted for registration in Category C

Registration Number: OC00707.52

Grynchuk K (Signature of the Administrator/SCO)

Date Registered: MAY 22 2018

Expiry Date: 2028 May 01

The information you provide is necessary only for the administration of the programs as required by the Alberta Safety Codes Act and Regulations in the Pressure Equipment Discipline.

All H values are excluded from this registration

K

DeZURIK, Inc.
DeZURIK BAW Butterfly Valves

The BAW AWWA butterfly valves are produced in standard sizes 80m to 1800 mm (3"-72"). Sizes up to 3600 mm (120") are available on application. Standard body materials are cast iron and ductile iron and are available with flanged ends in all sizes or mechanical joint ends in sizes 100 mm to 1200 mm (4"-48"). Two resilient seat material options are available. The BAW butterfly valves have provided successful service since 1997.

DESIGN SUMMARY:

SIZES	BODY MATERIALS	DESIGN CODE	AWWA* CLASSES	NOTES
80mm-1800mm (3"-72")	Cast Iron ASTM A126, Class B (AWWA Class 25A-150B)* Ductile Iron ASTM A536 Grade 65-45-12 (AWWA Class 25A-250B)*	**ASME B16.1** *Gray Iron Pipe Flanges and Flanged Fittings* **ASME B16.42** *Ductile Iron Pipe Flanges and Flanged Fittings* **AWWA C504** *Rubber Seated Butterfly Valves* **AWWA C111** *Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings*	25A, 75B, 150B, 250B	BAW Valve flange thicknesses and bolt patterns comply with ASME B16.1 Class 125, for AWWA pressure classes 25A, 75B, 150B, and 250B through 2400 mm (96"). For Sizes 2600 mm (102") and larger, flange bolt patterns and thicknesses comply with AWWA C516 & C207. Mechanical joint ends comply with AWWA C111. See attached tables, drawings and ER1802 for compliance to AWWA C504 & C516 minimum body shell thickness, and ASME 16.1, AWWA C516 & C207 flange and bolting dimensions. Valve temperature ratings are limited by the rubber seat material options (180F for NBR and 290F for EPDM). See Bulletin 43.00-2. Reference ASTM A395 / A395M Scope Paragraph 1.1 (This specification covers ductile iron castings for pressure – retaining parts for use at elevated temperatures. Castings of all grades are suitable for use up to 450F.) See Bulletin 43.00-2 *AWWA Butterfly valves* for further description, materials of construction, and applicable standards for DeZURIK AWWA butterfly valves.
2000mm- 600mm (78"-120")	Cast Iron ASTM A126, Class B (AWWA Class 25A-75B)* Ductile Iron ASTM A536 Grade 65-45-12 (AWWA Class 25A-250B)* (108" & 120" not available above AWWA Class 150B)	**ASME B16.1** *Gray Iron Pipe Flanges and Flanged Fittings* **AWWA C516** *Large-Diameter Rubber Seated Butterfly Valves, Sizes 78 In. (2,000 mm) and Larger* **AWWA C207** *Steel Pipe Flanges for Waterworks Service, Sizes 4 In. Through 144 In. (100 mm Through 3,600 mm)*	25A, 75B, 150B, 250B	

DeZURIK, Inc.
DeZURIK BOS-US Resilient-Seated Butterfly Valves

The BOS-US butterfly valves are produced in standard sizes 50mm (2") to 900 mm (36"). Standard body materials are ductile iron (2" – 36") and cast iron (24" – 36"). Two resilient seat material options are available, NBR and EPDM. The BOS-US butterfly valves are available in lugged and wafer bodies. The (2" – 20") valve sizes have been in service since 2006. The (24" – 36") valve sizes have been in service since 1974.

DESIGN SUMMARY:

SIZES	BODY MATERIALS	DESIGN CODE	CLASS	NOTES
50 mm – 500 mm (2" – 20") 600 mm - 900 mm (24" - 36")	Ductile Iron, ASTM A536 Grade 65-45-12 Cast Iron, ASTM A126 Class B Ductile Iron, ASTM A536	ASME B16.42 Ductile Iron Pipe Flanges and Flanged Fittings ASME B16.1 Cast Iron Pipe Flanges and Flanged Fittings ASME B16.5 Pipe Flanges and Flanged Fittings AWWA C504 Rubber-Seated Butterfly Valves	150	Conforms to ASME B16.42 Class 150 flange drilling, body wall thickness and pressure-temperature ratings. Flange bolt patterns comply with ASME B16.1, Class 125 and ASME B16.5, Class 150. Valve temperature ratings are limited by the seat material options (180F for NBR and 250F for EPDM). Wall thickness exceeds AWWA C504, Class 150B standard. Shaft diameter meets AWWA C504, Class 75B standard. Valves have a blowout proof shaft per API 609 standard. See Bulletins 46.00-2B and 40.00-1 BOS-US Resilient-Seated Butterfly Valves for further description, materials of construction, and applicable standards.

DeZURIK, Inc.
DeZURIK PEC Eccentric Plug Valves

The DeZURIK PEC Eccentric Plug valves are produced in standard sizes 15mm (.5") to 1800 mm (72"). Standard body materials are cast iron, ductile iron, carbon steel, and stainless steel. Flanged end connections are available in cast iron and ductile iron in all sizes, and carbon steel and stainless steel up to 500mm (20"). Mechanical Joint end connections are available in cast iron and ductile iron in sizes 80mm (3") to 1200mm (48"). Threaded end connections are available in all materials in sizes up to 100mm (4"). Many resilient seat material options are available. PEC valves have been in successful service for over 50 years.

DESIGN SUMMARY:

SIZES	BODY MATERIALS	DESIGN CODE	PRESSURE RATING	NOTES
15mm-1800mm (.5" - 72")	ASTM A126 Class B Cast Iron ASTM A536 Grade 65-45-12 Ductile Iron	**AWWA C517** *Resilient Seated Cast Iron Plug Valves* **ASME B16.1** *Cast Iron Flanges* **ASME B16.42** *Ductile Iron Flanges* **ASME B16.5** *Pipe Flanges and Flanged Fittings* **AWWA C111/A21.11** *Rubber-Gasket Joints*	175 psi (.5"-12" CI) 150 psi (14"-72" CI) 285 psi (.5"-12" DI) 250 psi (14"-72" DI)	PEC valve line meets the design safety factor requirements of AWWA C517. Engineering Report ER0706 summarizes the design analysis. Flange bolt patterns comply with ASME B16.1 Class 125, ASME B16.42 Class 150, and ASME B16.5 Class 150. Mechanical Joint end connection dimensions and bolt patterns comply with AWWA C111/A21.11. Valve temperature ratings are limited by the rubber plug face seat materials or 450F for cast iron or ductile iron valves with all-metal plugs. See Bulletin 12.00-1B or 1D. Reference ASTM A395/A395M Scope Paragraph 1.1. This specification covers ductile iron castings for pressure retaining parts use at elevated temperatures. Castings of all grades are suitable for use up to 450F. See Bulletin 12.00-1B and 12.00-1D *PEC Eccentric Plug Valves Technical* for further description, materials of construction, and applicable standards for PEC eccentric plug valves.
15mm-500mm (.5" – 20")	Carbon Steel, ASTM A216, WCB Stainless Steel, ASTM A743, ASTM A351, CF8M		275 psi (.5-20" SST) 285 psi (.5-20" CS)	See Engineering Report ER0709 for verification that the carbon steel and stainless steel valves meet the allowable stress limits found in the ASME Pressure Vessel Code, Section II, Part D, Materials, Table 1A.

DeZURIK, Inc.
DeZURIK PEF 100% Port Eccentric Plug Valves

The DeZURIK PEF 100 % Port Eccentric Plug valves are produced in standard sizes 50mm (3") to 900 mm (36") with Flanged and Mechanical Joint body end connections. Standard body materials are cast iron and ductile iron. Several resilient seat material options are available. PEF valves have been in successful service for over 10 years.

DESIGN SUMMARY:

SIZES	BODY MATERIALS	DESIGN CODE	PRESSURE RATING	NOTES
80mm-900mm (3" - 36")	ASTM A126 Class B Cast Iron ASTM A536 Grade 65-45-12 Ductile Iron	**AWWA C517** *Resilient Seated Cast Iron Plug Valves* **ASME B16.1** *Cast Iron Flanges* **ASME B16.42** *Ductile Iron Flanges* **ASME B16.5** *Pipe Flanges and Flanged Fittings* **ASME/AWWA C111/A21.11** *Rubber-Gasket Joints*	175 psi (3"-12") 150 psi (14"-36")	PEF valve line was designed to meet the requirements of AWWA C517. Engineering Report ER0708 summarizes the design analysis. Flange bolt patterns comply with ASME B16.1 Class 125, ASME B16.42 Class 150, and ASME B16.5 Class 150. Mechanical Joint end connection dimensions and bolt patterns comply with AWWA C111/A21.11. PEF temperature ratings are limited by the rubber plug face seat material and packing material. See Bulletin 12.60-1B *PEF 100% Port Eccentric Plug Valves Technical Specifications* for further description, materials of construction, and applicable standards for PEF plug valves.