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

August 08, 2018

Jerome Grant
DEZURIK
250 RIVERSIDE AVE N
SARTELL MN 56377
US

Service Request Type.: BPV-National CSA
Service Request No.: 2300308
Your Reference No.:
Registered to.: DEZURIK

Dear Jerome Grant,

Please find enclosed the original response from QC, SK registered under the CRN No.: 0C0707.56R5.

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,

Joanna Karpinski

Tel: 416-734-3377
Fax: 416-231-6183
Email: jkarpinski@tssa.org

Régie du bâtiment Québec

REGISTERED
CRN: CSA-0C0707.56R5
Registration Process administered by CSA Group per CSA B51

Statutory Declaration Registration of Fittings

(a) Design Qualification

I[1] Jerome D Grant, P. E. Engineering Industry Standards Manager

(Position eg, president, plant manager, chief eng.)

Of DeZURIK, Inc.
(name of company)

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

do solemnly declare that the fittings listed hereunder, which are subject to the Boilers & Pressure Vessels Act:

☒ comply with all the requirements of the ANSI/ASME codes as to their dimensions, material, identification & service for which are required:

Or

☐ are not covered by the provisions of the ANSI/ASME codes, and are therefore constructed to comply with _____ _____ code and standard, and are designed to the best current engineering practice, as shown by the supporting test data.

(b) Quality control of Manufacture

I further declare the manufacture of these fittings is controlled by a quality control program which complies with the requirements of ISO 9001:2008, and has been verified by the following authority or authorized agency TUV

The fittings[2] covered by this declaration, for which I seek registration, are valves

In support of the 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

In the of State of Minnesota

The 13th Day of April AD 19 2018

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

Wayne Schmitz
(commissioner for oaths)

Jerome D Grant
Signature of Declarer[3]

For Official Use Only

The application is accepted for registration in Category C in accordance with the Boilers and Pressure Vessels Act and CSA Standard B51.

This registration must be revalidated after ten (10) years from the date of acceptance. MAY·01·2028

Registered Number CRN CSA-0C0707.56R5 For the Chief Inspector A. BANWATT

Date June·13·2018

CSA Group

1 ***Three completed copied of Statutory Declaration form together with three copies of Catalogs, drawings of Bulletins illustrating above fittings shall be submitted.***
2 ***All fittings are required to be registered in the name of the Manufacturer.***
3 ***This form shall be completed and signed by the president of highest official in the manufacturing plan where the fitting is produced.***

*Note:
1. See attachment as the scope of registration.
2. Renewal registration without construction material, design specification & pressure rating change.
3. Technical review performed in the previous registration.

CSA Group

REGISTERED

CRN: CSA-B0707.56R5

Registration Process administered by CSA Group per CSA B51

Technical Review performed per CSA B51
Performed by: ANRIC Enterprises Inc.

Signed:

Date: 13 June 2018

Technical Safety Authority of Saskatchewan

2202 2nd Ave.
Regina, SK S4R 1K3
PH: (306)798-7112 Toll Free: (866)530-8599
FAX: (306)787-9273 Toll Free: (866)760-9255
Email: boilerpermits@tsask.ca
Website: www.tsask.ca

Statutory Declaration (Registration of Fittings)

TSK-1008

I. Declaration Information

I, Jerome D Grant, P.E.,

Engineering Industry Standards Manager
(company title, e.g. vice president, plant manager, chief engineer)
(must be in a position of authority in the manufacturing plant where the fitting is produced)

of: DeZURIK, Inc.
(name of manufacturer)

located at: 250 Riverside Ave N (Plant Address – Apt/Street) Sartell, MN (City,Prov) 56377 (Postal Code)

do solemnly declare that the fittings listed hereinunder, which are subject to the ***Saskatchewan Boiler and Pressure Vessel Safety Act*** (check one)

☑ Comply with the requirements of See product of 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 _____ 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 manufacturer of these fittings is controlled by a quality control program which has been verified by the following authority, TUV as being suitable for the manufacturer of these fittings to the stated standard. The fittings covered by this declaration, for which I seek registration, are valves

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.

II. Declaration

DECLARED before me at Sartell In the State of Minnesota

this 13th day of April, 2018

Wayne Schmitz
(print name)

(Signature of Commissioner of Oaths)

Jerome D Grant
(Signature)

WAYNE D. SCHMITZ
NOTARY PUBLIC
MINNESOTA

III. Office Use Only

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

(Registration Number) REGISTERED

CRN: CSA-0C0707.56R5

Registration Process administered by CSA Group per CSA B51

June 13 2018
(Date Registered – MM DD YYYY)
(For the Administrator / Chief Inspector)

MAY 01 2028
(Expiry Date – MM DD YYYY)

A. BANWATT

*Note:
1. See attachment as the scope of registration.
2. Renewal registration without construction material, design specification & pressure rating change.
3. Technical review performed in the previous registration.

REGISTERED

CRN: CSA-0C0707.56R5

Registration Process administered by
CSA Group per CSA B51

Technical Review performed per CSA B51
Performed by: ANRIC Enterprises Inc.

Signed: _____

Date: 13 June 2018

345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel.: 416.734.3300
Fax: 416.231.1626
Toll Free: 1 877 682 8772

www.tssa.org

May 01, 2018

Jerome Grant
DEZURIK
250 RIVERSIDE AVE N
SARTELL MN 56377
US

Service Request Type: BPV-Fitting Registration
Service Request No.: 2286096
Your Reference No.:
Registered to: DEZURIK

Dear Jerome Grant,

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

CRN No.: **0C0707.5R5**
Main Design No.: **VALVES: BAW, BOS-US, PEC, PEF**
Expiry Date: **01-May-2028**

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

A stamped copy of the approved registration and invoice for engineering services will be sent 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. We will be happy to assist you. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

Zivko Gacevic P. Eng.
Mechanical Engineer, BPV
Tel.: 416-734-3429
Fax: 416-231-6183
Email: zgacevic@tssa.org

CSA Group 1 OF 5

ATTACHMENT TO
C.R.N. CSA-0C0707.5R5
Signed:
178 Rexdale Boulevard, Toronto, ON Canada M9W 1R3

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	

CSA Group

ATTACHMENT TO
C.R.N. CSA-0C0707.5GRS
Signed:
178 Bridgeland Boulevard, Toronto, ON Canada M9W 1R3

THIS IS PART OF
CRN 0C0707.5RS
Technical Standards & Safety Authority
Boilers & Pressure Vessels
Safety Program
c.c. 5/11/18

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")	Ductile Iron, ASTM A536 Grade 65-45-12	ASME B16.42 Ductile Iron Pipe Flanges and Flanged Fittings	150	Conforms to ASME B16.42 Class 150 flange drilling, body wall thickness and pressure-temperature ratings.
600 mm - 900 mm (24" - 36")	Cast Iron, ASTM A126 Class B Ductile Iron, ASTM A536	ASME B16.1 Cast Iron Pipe Flanges and Flanged Fittings ASME B16.5 Pipe Flanges and Flanged Fittings		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.
		AWWA C504 Rubber-Seated Butterfly Valves		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.

CSA Group 30F5

ATTACHMENT TO
C.R.N. CSA-0C0707.5R5
Signed:
178 Rexdale Boulevard, Toronto, ON Canada M9W 1R3

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Technical Standards & Safety Authority
Boilers & Pressure Vessels
Safety Program
Z. G. 5/11/18

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.

CSA Group 40F5
ATTACHMENT TO
C.R.N. CSA-0C0707.5R5
Signed:
178 Rexdale Boulevard, Toronto, ON Canada M9W 1R3

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Technical Standards & Safety Authority
Boilers & Pressure Vessels
Safety Program
Z. C. 5/11/18

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.

CSA Group 5 OF 5

ATTACHMENT TO
C.R.N. CSA-0C0707.5 6R5
Signed:
178 Rexdale Boulevard, Toronto, ON Canada M9W 1R3

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Z.G. 5/11/18