



HSB (Australia) Pty Ltd

Certificate No. S08879R1

ACN: 090 591 334

CERTIFICATE OF DESIGN VERIFICATION

Description: Soda Blast Tank SB-200

Drawing No:..... SB-200, Rev - dated 15/09/2008) 10 Sheets

Designer:..... Ed Mansell, MMLJ 5711 Schurmier Rd Houston Texas

Registered to: JRA Ventures Pty Ltd. PO Box 2005 Maroubra NSW

Design Code:..... ASME Section VIII, Div. 1, 2007 Ed and AS1210 – 1997 (incl. Amendment 3) compliant

Classification:..... AS1210, (equivalent): Class 3

Design Pressure: Shell: 1034kPa (150psi)

Test Pressure:..... Shell: 1550kPa (225psi) 1.5 x Design

Design Temperature:..... 149°C (300°F)

MDMT: -6.7°C (20°F) at Design Pressure

NDT: None

Corrosion Allowance: 0.00

Hazard Level/Contents:..... D Sodium Bicarbonate + Air AS4343 - 2005
NHG(73ltrs)

Seismic Loading:..... ASCE -7-02 Importance Factor = 1.0000

Wind Loading:..... ASCE -7-02 Wind Speed V=136.8

Comments:



The above subject item of plant has been assessed and the design is deemed compliant within constraints of the nominated design parameters, based on the information provided.

Note* This Design has been assessed and provides a level of safety equivalent to AS1210.

Design Verifier: S. Babka

Nata Signatory:

Date: 27/11/2008

 <small>ACCREDITED FOR TECHNICAL COMPETENCE</small>	<p>Accredited to AS/NZS ISO/IEC 17020 ACCREDITATION No. 14969</p>	<p>Level 8, 440 Collins Street Melbourne, Vic. 3000 Phone: +61 3 9605 9910 Fax: +61 3 9642 0356</p>	<p>AS/NZS ISO 9001:2000 Design Verification of Pressure Equip Mfg to AS3920-1 Part 1</p>	
<p>This document is issued in accordance with NATA's accreditation requirement.</p>		<p>THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL</p>		