

Audit AU2014239

931414 Element Daleville (LAB)

Audit type: System / External Lab
Audit trigger: Follow up
Unplanned:

Status: Signature Provided
Planned date: 2022.02.01 00:00 to 2022.02.01 00:00

Date: 2022.02.01 00:00 to 2022.02.01 00:00

Audit result

Rating: Approved/Godkänd

This Document contains no Technical data

Persons involved

Role	Description
Lead Auditor	Per Rehdell
Approver	Stefan Abrahamsson
Engineering	Sven Johansson
Engineering	Thomas Hansson

Audit Report

Distr.list:On GKN Supplier Portal(GKN Aerospace external Lab.list) & Element Lab.Daleville

Background

The GAS system concerning GKN Aerospace Sweden AB (GAS)designed products requires Method Approval from GAS for Lab. performing material testing or testing to verify requirements per the method standard VOLS:10071573: Control of Materials and Methods.All Laboratories must be listed in the database for Nadcap approvals or have an ISO17025 approval for the scope which is used on the GAS parts.Ref.Standard VOLS:10071573:Control of Materials and Methods.

GKN Aerospace Auditor

~~Purchasing~~
Engineering

GKN Aerospace Quality Manager

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Time : The audit / review has been performed 2022-02-02

Address

Element Daleville LLC
9301 Innovation Drive Suit 175
47334 Daleville IN US

Lead Auditor : Per Rehdell

Audited requirements : Standard VOLS:10071573: Control of Materials and Methods

After review of Elements data and internal standards ,showed both by Skype meetings and by mail has Code XA (Creep) been added to the GAS Approval Scope for Element Daleville.

Elements internal standard for test of L8 Near Surface Examinations - Alpha Case: Wrought Titanium (& L9 castings) , fulfills requirements in according with GAS specification Vols:10066156 issue 1.

This after a review of Element Daleville internal standard PTP 1007 Rev.16 with the title "Metallographic Examination of Titanium Alloy Specimens for Alpha Case". Element Daleville will now be approved for Alpha case examination in accordance with VOLS:10066156 iss.1

Nadcap MTL Approval for Element Daleville has been reviewed and are valid until 2023-05-31.The ISO 17025 approval is valid until 2022-08-31.

Non Conformance

Conclusion

Element Daleville is approved for work in below Nadcap process codes on GKN Aerospace Sweden AB (GAS)designed products controlled by GAS specification VOLS:10071573 (Control of Materials and Methods).

Mechanical Testing :(N, A, C, B, XN , **XA**)

Hardness: (M2, M1)

Metallography and Microhardness: L6,L0,L11,L2,L4,L3,L1,XL,L5,L7, L10,L5X,L12 and **VOLS:10066156**

Specimen Heat Treating

Mechanical Testing Specimen Preparation : Z,Z4,Z3

Chemical testing :G,G4,G1,S,F,F3,G3,G5,G2,D,F1,F2,W,W2

Alloys: Fe-, Mg-, Co-, Ni-, Al-, Ti- and Cu Base

Corrosion: Q, Q1 , Q1-1,Q1-4A,Q3

Evaluation of Welds:

Supplement B Metallurgical Evaluation of Fusion Welds

Supplement D Metallurgical Evaluation of Resistance Welds

Supplement A Metallurgical Evaluation of Welder/Welding Operator Qualifications

Supplement E Bend Test Evaluation of Electron Beam and Laser

Supplement E Bend Test Evaluation of Fusion Welds

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Supplement E Bend Test Evaluation of Welder/Welding Operator Qualification Welds

Supplement C Metallurgical Evaluation of Electron Beam/Laser Welds

Attention:

- 1) Element Dalevills internal standard for test of Near Surface Examinations - Alpha Case: Wrought Titanium and castings, fulfills requirements in according with GAS specification no:VOLS:10066156. Has been added to the GAS Scope(2021) .
- 2) Mechanical testing in accordance with code XA(Creep) has been added to the GAS Scope based on review of data , equipment and processes/procedures, (2021) .

Based on this data and information we have discussed the potential risks and can recommended Element Daleville for continuation as an Approved Supplier/Lab.to GKN Aerospace Sweden until 2023-06-30.