

GB Approval - AES BES Assessment Preliminary Information Report

Legislation

Retained Regulation (EU) No 715/2007 and 2017/1151, as amended by SI 2022 No. 1273
Retained Regulation (EU) No 595/2009 and 582/2011, as amended by SI 2022 No. 1273

Application Details

Approval Holder Name and Address:	
VCA Work Order Number:	
Contact name:	
Contact email:	

Manufacturer Declaration

This application has been submitted in accordance with the above-mentioned legislation. The data and information provided within this document is correct and accurate. If any changes occur that alter any of these details, we will notify the VCA in writing.

Signature:	
Name:	
Date:	
Position:	

VCA Conclusion (Official Use Only)

This application was assessed in accordance with the above-mentioned legislation and was found to comply based on the information provided

Signature:	
Name:	
Date:	
Position:	

Issue Record

Issue 0 is original report

List of documents supplied to support this report

Filename	File type
e.g. AES BES document	e.g. PDF

Guidance notes

- All applicants must complete the declaration on page 1 via entries in the green fields
- Where the application for GB Approval covers more than one variant, please complete this report based on the worst-case variant.
- Light Duty applications please fill out sections 1 & 2 entering the required information in the green fields
- Heavy Duty application please fill out sections 3 & 4 entering the required information in the green fields
- All applicants must review section 5.
- Once completed, this document should be submitted in addition to the AES BES document covered by the GB Scheme application being made.

Section 1 - Light Duty Declarations

1a Powertrain details:

Engine Capacity & Configuration	e.g 1498cc Inline 4cyl
Fuel Type & Delivery	e.g Gasoline GDi / Diesel Common Rail
Electrification (if applicable)	e.g 48v MHEV BISG
Exhaust Aftertreatment	e.g TWC/GPF or DOC/LNT/DPF/SCR
Transmission & Driveline	e.g 6-speed AT AWD

1b
(If answered
'Yes' for 1b, only
Complete Section
1)

Has the extended documentation package associated with this application already been reviewed and approved by the VCA as part of another approval application?

Select Option

If yes, please enter the VCA Job Number / Work Order Number:

1c

Is this GB Approval application based on an existing Regulation (EU) 715/2007 EU type approval?

Select Option

If yes, please enter the Approval Number:

1d
(If answered
'Yes' to 1c)

AES BES Assessment declaration

Select Option

We confirm that the AES BES documentation as presented for GB Approval has been reviewed and accepted by a European member state Type Approval Authority or Designated Technical Service, based on Regulation (EU) 2017/1151 as amended by 2018/1832

1e

Defeat Device Declaration

Select Option

We hereby declare the absence of prohibited defeat devices in accordance with Article 3 (10) of Regulation (EC) no.715/2007 in conjunction with Article 5, paragraph 2 of Regulation (EC) no.715/2007

1f

Compliance with the Real Driving Emissions requirements

Select Option

The vehicle type(s) listed in this application comply with the requirements laid down in point 2.1 of Annex IIIA to Retained Regulation (EU) 2017/1151 relating to real driving emissions for all possible RDE tests, which are in accordance to the requirements of this Annex.

Section 2 - Light-Duty AES impact data

To allow VCA to assess the pollutant impact of AES activation, we require RDE emissions data (tested according Retained Regulation (EU) 2017/1151 as amended by 2018/1832) under limit case conditions, where we believe critical AESs would be typically active.

These critical AESs include:

- Combustion and/or aftertreatment control modulation based on low environmental temperature
- Combustion and/or aftertreatment control modulation based on high engine load and/or speed

For this assessment, there are two typical use-cases based on real world conditions where VCA believes such AESs would be activated.

These boundary conditions include:

- Case#1: Average ambient temperature is 0DegC or below
- Case#2 Vehicle payload is minimum 80% GVW **and/or** Drive metric V*aPos at minimum 85% of the applicable limit (for Urban, Rural and Motorway phases).

Please complete sections 2a and 2b with requested emissions data as per the above conditions. If this application for GB Approval covers more than one vehicle type, please use data taken from the worst-case variant.

If the submitted emissions data does not fall within the conditions suggested above, please use the notes section to give a technical explanation for the data presented in relation to the activation of critical AESs under normal use, and their subsequent emissions impact.

RDE Case#1

Test report number / reference	
Date of test	
ID of test vehicle	

Average ambient temperature over trip	
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Pollutant	Measured Value Urban	Measured Value Total trip	NTE Limit Value
NOx			10
PN			
CO			NA

RDE Case#2

Test report number / reference	
Date of test	
ID of test vehicle	

Vehicle payload (Kg and percentage of GVW)	
VaPos Urban / Rural / Motorway (%limit)	

Pollutant	Measured Value Urban	Measured Value Total trip	NTE Limit Value
NOx			
PN			
CO			NA

Notes

Section 3 - Heavy Duty Declarations

3a Powertrain details:

Engine Capacity & Configuration	e.g 1498cc Inline 4cyl
Fuel Type & Delivery	e.g Gasoline GDi / Diesel Common Rail
Exhaust Aftertreatment	e.g TWC/GPF or DOC/LNT/DPF/SCR

3b
(If answered
'Yes' for 3b, only
Complete Section
3)

Has the extended documentation package associated with this application already been reviewed and approved by VCA as part of another approval application?

If yes, please enter the VCA Job Number / Work Order Number:

3c

Is this GB Approval application based on an existing Regulation (EU) 595/2009 EU type approval?

If yes, please enter the Approval Number:

3d
(If answered
'Yes' to 3c)

AES BES Assessment declaration

We confirm that the AES BES document as presented for GB Approval has been reviewed and accepted by a European member state Type Approval Authority or Designated Technical Service, based on Regulation (EU) No 595/2009 and 582/2011, as amended by 2019/1939

3e

Defeat Device Declaration

We hereby declare the absence of prohibited defeat devices in accordance with Regulation (EU) No 595/2009 and 582/2011, as amended by 2019/1939

3f

Off-cycle emissions compliance statement

We hereby declare that the engines within this engine family comply with all requirements of this annex. We make this statement in good faith, after having performed an appropriate engineering evaluation of the emissions performance of the engines within the engine family over the applicable range of operating and ambient conditions.

Section 4 - Heavy Duty AES impact data

To allow VCA to assess the pollutant impact of AES activation, we require PEMS (tested according to Retained Regulation (EU) No 595/2009 and 582/2011, as amended by 2019/1939) emissions data under conditions where we believe critical AESs would be typically active.

These critical AESs include:

- Combustion and/or aftertreatment control modulation based on low environmental temperature
- Combustion and/or aftertreatment control modulation based on high engine load and/or speed

For this assessment, there are two typical use-cases based on real world conditions where VCA believe's such AESs would be activated.

These boundary conditions include:

- Case#1: Average ambient temperature is between 0DegC or below.
- Case#2: Vehicle payload is maximum 20% GVW or less, or vehicle payload is minimum 80% GVW

Please complete sections 4a and 4b with requested PEMS emissions data as per the above conditions.

If the submitted emissions data does not fall within the conditions suggested above, please use the notes section to give a technical explanation for the data presented in relation to the activation of critical AESs under normal use, and their subsequent emissions impact.

PEMS Case#1

Test report number / reference	
Date of test	
ID of test vehicle	

Average ambient temperature over trip	
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Pollutant	Measured Value	NTE Limit Value	
NOx			
THC			
CO			
PN			

PEMS Case#2

Test report number / reference	
Date of test	
ID of test vehicle	

Vehicle payload (Kg and percentage of GVW)	
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Pollutant	Measured Value	NTE Limit Value	
NOx			
THC			
CO			
PN			

Notes

Section 5 - Audit Schedule

To allow the VCA to assess continued conformity of AES BES documentation submitted into GB Approval applications, we will conduct an annual Audit.

This is VCA's opportunity to check that a sample of AES BES documents meet the regulatory requirements and ensure that real driving emissions for vehicles in the UK market are at their lowest possible levels.

Scope of Audit (to include but not necessarily limited to):

- Sample of 2 AES BES documents (these will be requested 6 weeks ahead of the Audit date)
- Review of declared data within this document
- Review of RDE robustness process prior to Start of Production
- Review of powertrain calibration and AES BES change process

This will require personnel with suitable knowledge of the design and verification of the emissions control systems, as well as the personnel with the responsibility of authoring, maintaining, and delivering the final AES BES documents.

We will arrange to visit your facility/premises for this Audit, we anticipate this will be completed within one working day.

The email address entered in the applicants' details section will be used for communication on the Audit; please double check the contact details are correct.