

1. INTRODUCTION

DOE VTA Online Application System is an application for noise and gas emission certificates through online and digital. Applicant shall be able to submit their application forms and receive the results through online system. All the notification and confirmation of the application is through email. The approval will be sent through online to the applicant and National VTA Secretariat.

2. OBJECTIVE

- i) Expedite the application process from the submission until the processing;
- ii) Promote paperless administration;
- iii) To automate the process of application and improve the delivery system;
- iv) Expedite the delivery of approval information to the National VTA Secretariat (RTD);
- v) Improve the confidentiality of information; and
- vi) Simplified the process and record keeping.

3. SYSTEM ACCESS

The system can be accessed through the <http://vta.doe.gov.my> by using the Mozilla Firefox version 25.0, Google Chrome and Internet Explorer version 10, or the latest version of those internet browser.

4. CATEGORIES OF USERS

There are three (3) categories of users. Each category has different roles and functions:

i) **Applicant:-**

- a) Register and submit the personal or company profile;
- b) Submit vehicle type information; and testing reports and information.

ii) **DOE Officer:-**

- a) Process and review application; and
- b) Approve and issue the type approval certificates.

iii) **National VTA Secretariat:-**

- a) Received certificate from the system.

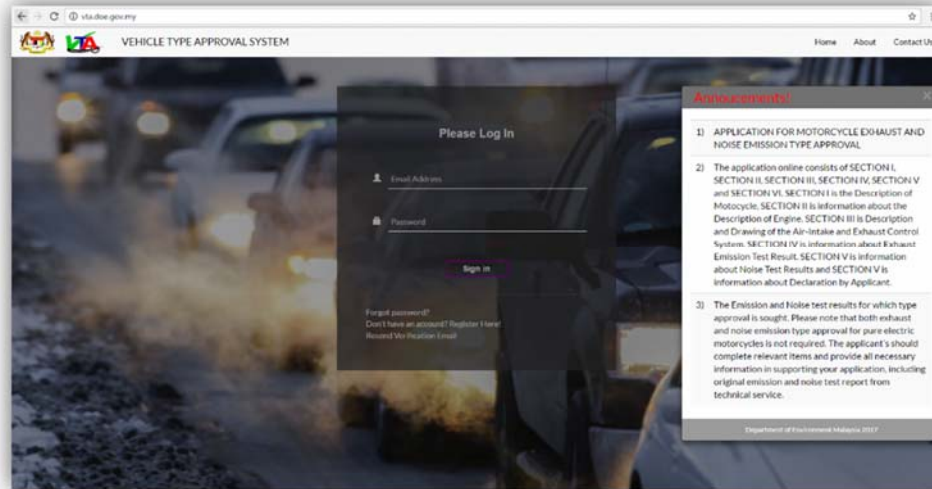
5. USER ID AND PASSWORD

Users will only be able to access to their own dashboard profile and list of applications. Access to application is strictly limited to the person that creates the user ID and authorized staff from the company. The registered email address will be the user ID for login to the system.

VEHICLE TYPE APPROVAL (VTA) ONLINE SYSTEM USER MANUAL

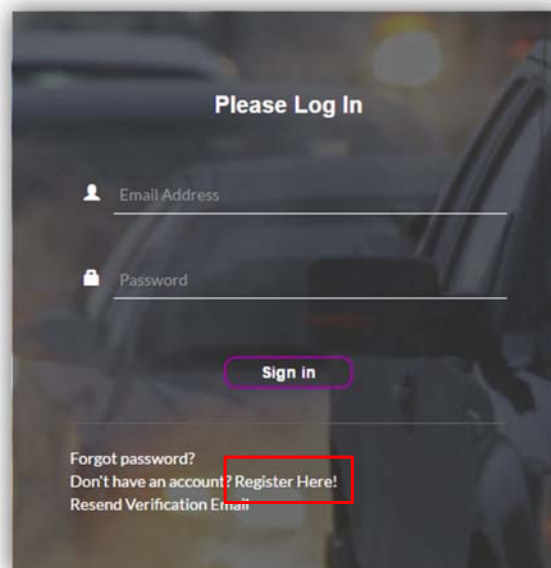
A. GETTING STARTED

On the address bar, type <http://vta.doe.gov.my> and then press “ENTER” key from your keyboard and the main page will be displayed below.



B. SIGNUP

Click “Register Here!” on main page.



Complete all the required information for registration and click “sent” after completing all the fields. All fields are mandatory.

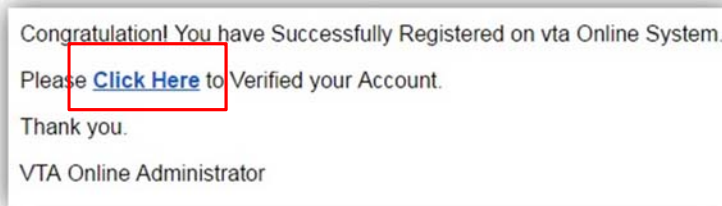
The screenshot shows a registration form titled "NEW APPLICANT REGISTRATION". The form is divided into two columns. The left column contains fields for: "Name of Applicant (an Individual or a Company)" with a sub-field "Name of Applicant"; "Address" with sub-fields "Address 1", "Address 2", and "Address 3"; "Country" with a dropdown menu "Please Select Country"; "Contact Person Name" with a sub-field "Contact Person Name"; and "Position" with a sub-field "Position". The right column contains fields for: "Telephone Number" with a sub-field "Telephone Number"; "Fax Number" with a sub-field "Fax Number"; "H/P Number" with a sub-field "Fax Number"; "Email Address" with a sub-field "your_id@example.com"; "Password" with a sub-field "Password" and validation rules: "Atleast 8 Characters", "Atleast One Letter", and "Atleast One Number"; "Retype Password" with a sub-field "Confirm Password"; and "Profile Picture (Optional)" with a "Choose File" button, "No file chosen" text, and "Attachment Specification: .jpg Only less than 1MB". A blue "Sent" button is located at the bottom right of the form, enclosed in a red rectangular box.

Error message appear if the information is not filled in or wrong format file attachment.

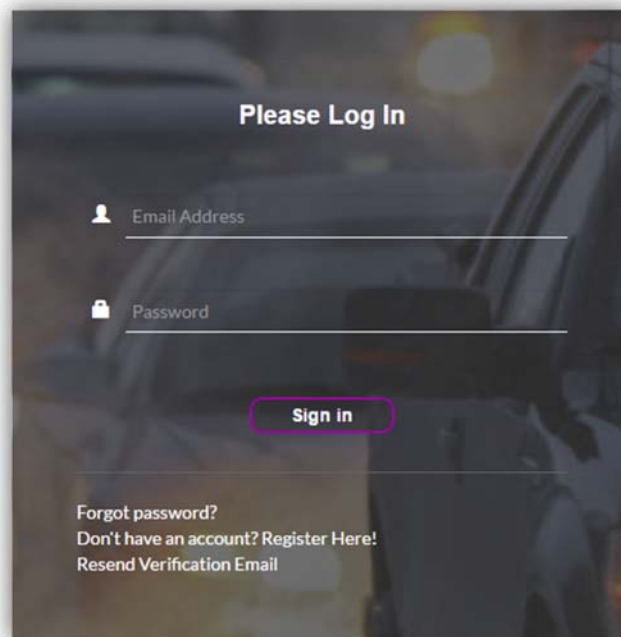
This screenshot shows the same registration form as above, but with error messages. Red boxes with an 'X' icon and error text are present around most fields: "Name of Applicant" (name of Applicant is required), "Address 1", "Address 2", "Country" (Country is required), "Contact Person Name" (Contact Person Name is required), "Position" (Contact Person Position is required), "Telephone Number" (Telephone Number is required), "Fax Number" (Fax Number is required), "H/P Number" (H/P Number is required), "Email Address" (Email Address is required), "Password" (Password is required), and "Retype Password" (Confirm Password is required). The "Address 3" field has a green checkmark. The "Profile Picture (Optional)" section is highlighted with a red box, showing the "Choose File" button, "No file chosen" text, and "Attachment Specification: .jpg Only less than 1MB". A green checkmark is visible to the right of this section. The "Sent" button is still present at the bottom right.

Profile picture (jpg format) can be either an individual picture or company logo.

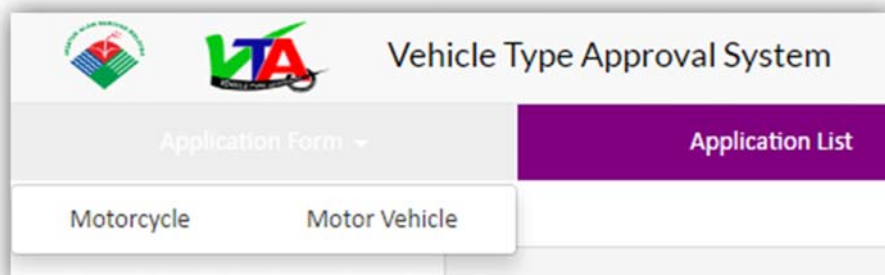
A message will be sent to applicant through email for verifying the account. Click on the “Click Here” to activate applicant’s account. “Click Here” will no longer be used if applicant click in second time. Check your spam or bulk mail folder in the mailbox if applicant does not receive any message in the Inbox.



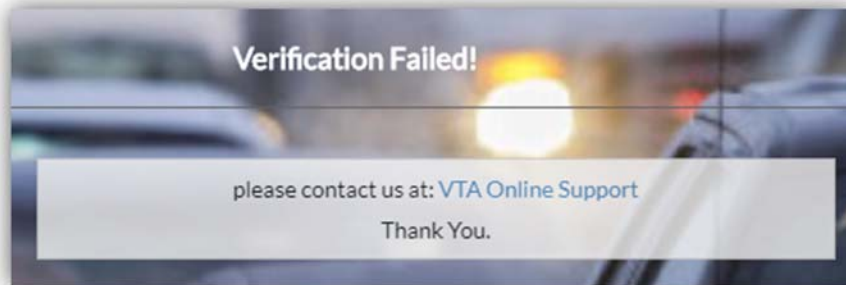
To login, user must key in their registered email address and password and press “sign in” button.



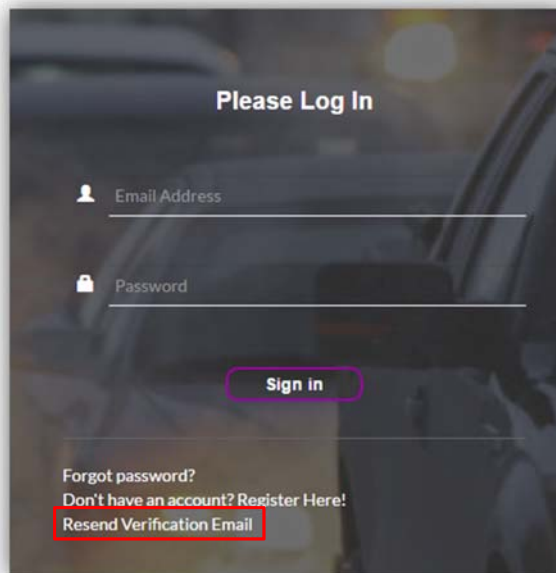
If successful, dashboard “Application List” will be showed in the system.



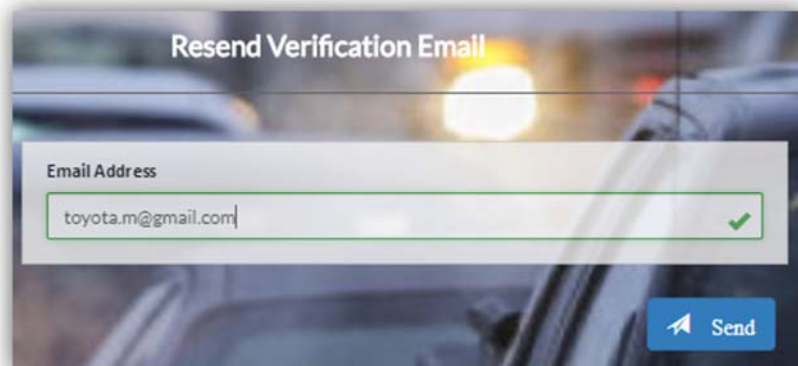
If unsuccessful, the message below will be showed



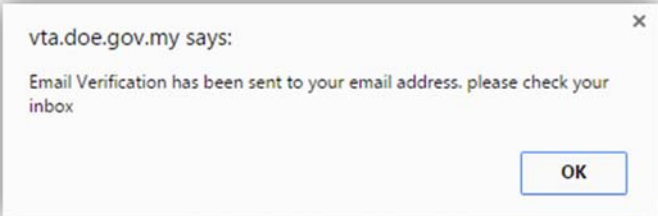
If applicant does not receive any notification email for verification account, the applicant can apply click "Resend Verification Email". Email will be sent another time.



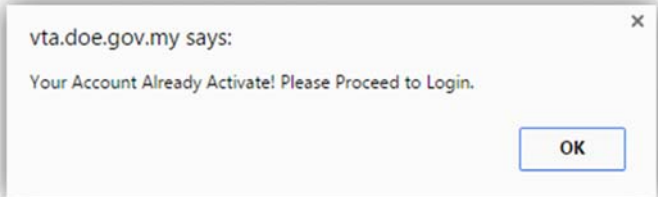
Enter the registered email address. Field will be green if the email address is correct.



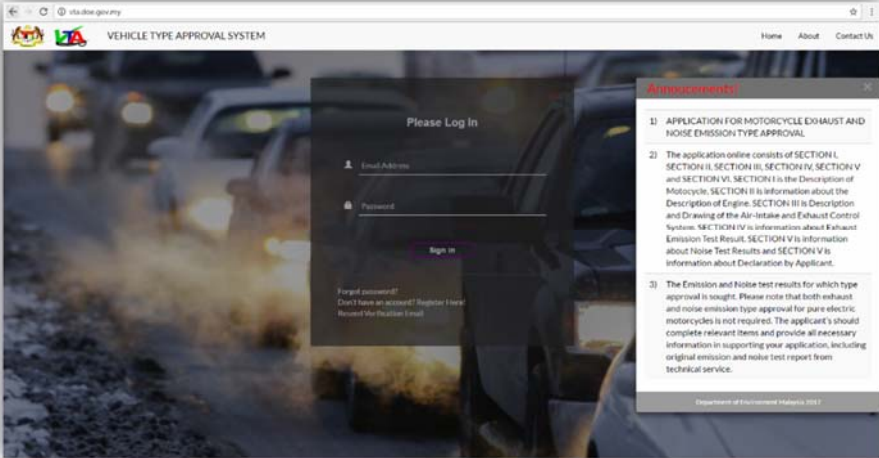
Pop-up message notifications that the system has been sent a verification email to the registered email address



Pop-up message notifying that the account has been activated



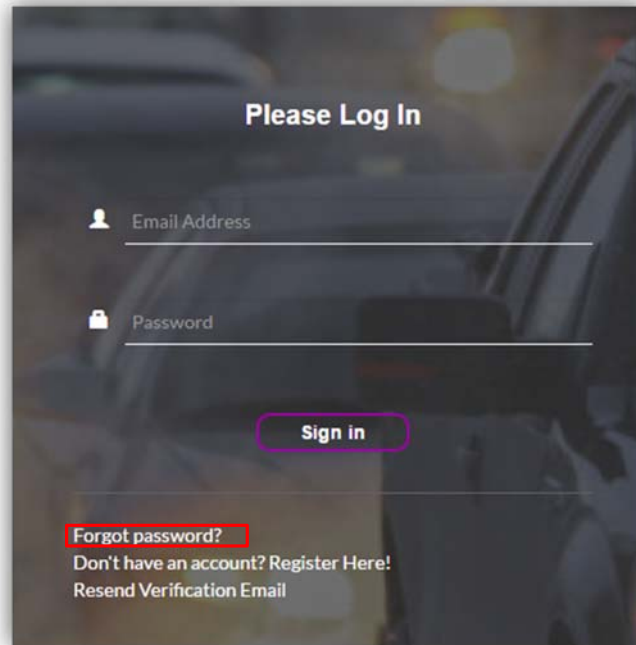
Applicant must key in their registered email address and password to login to the system.



FORGOT PASSWORD

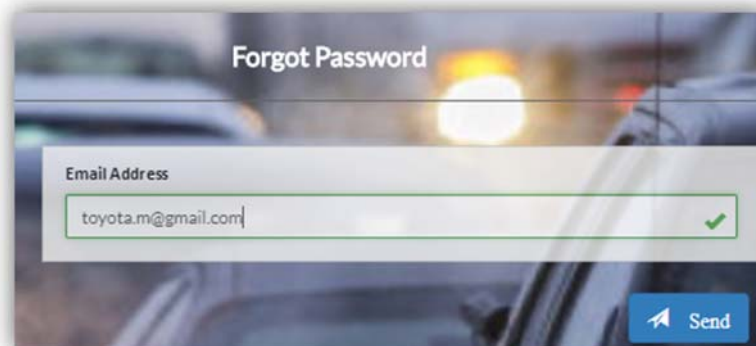
If applicant forgot the password and would like to reset it, below are the steps to reset the password:

Click the “Forgot Password?” link and key in the registered email address, and the applicant can receive a temporary password.



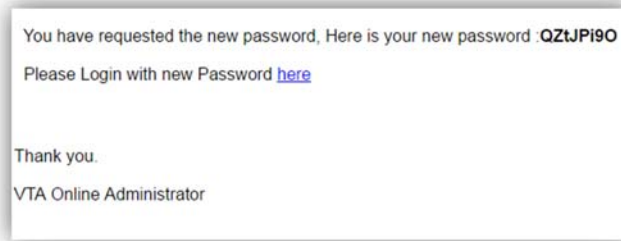
The screenshot shows a login form titled "Please Log In". It features two input fields: "Email Address" and "Password". Below the fields is a "Sign in" button. At the bottom, there are three links: "Forgot password?" (highlighted with a red box), "Don't have an account? Register Here!", and "Resend Verification Email".

Field will be green if the email was entered as registered



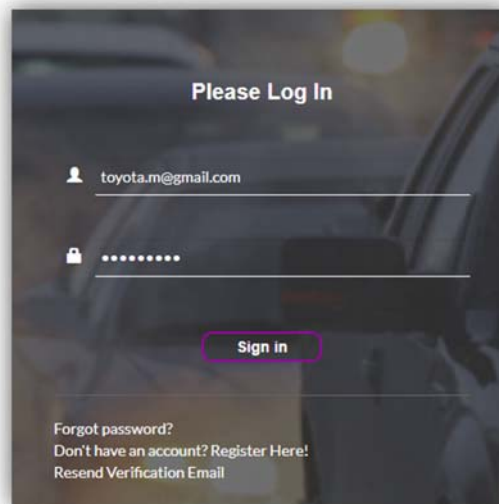
The screenshot shows the "Forgot Password" page. The "Email Address" field contains the text "toyota.m@gmail.com" and has a green checkmark on the right side, indicating that the email is registered. A "Send" button is visible at the bottom right.

Applicant will receive a temporary password by email and click “here” link to login system

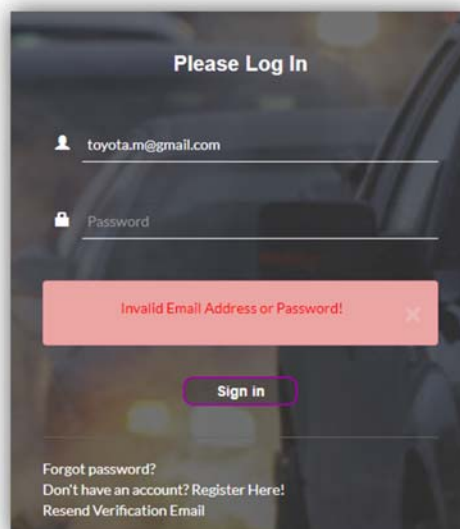


LOGIN TO SYSTEM

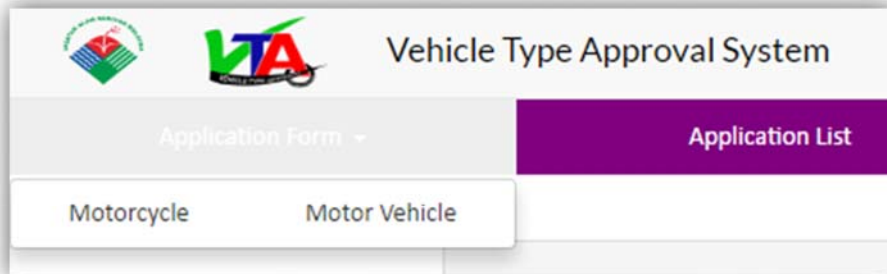
- i. Enter your registered email address
- ii. Enter your registered or temporary password and click “sign in” tab



An error message will be displayed if the email or password you entered is incorrect



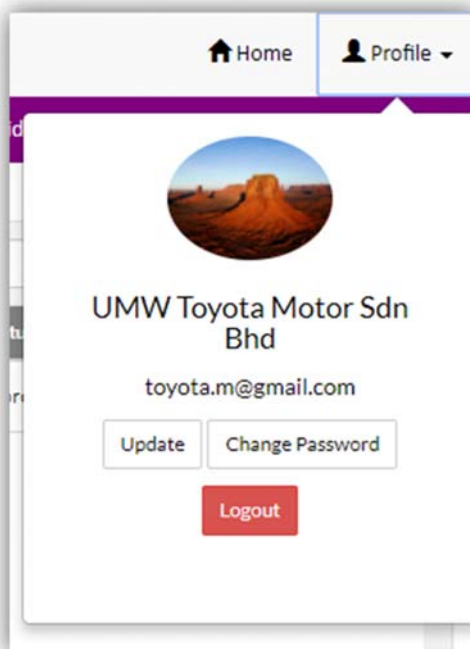
If successful, the dashboard will display a list of applications that have been created. List is empty for new users



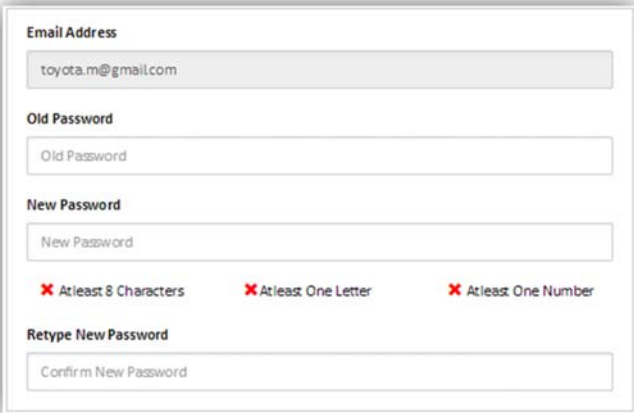
CHANGING THE PASSWORD

You can change your account password at any time:-

- i. Click on the "Profile" tab on the right side of the Main Menu and click "Change Password" link.



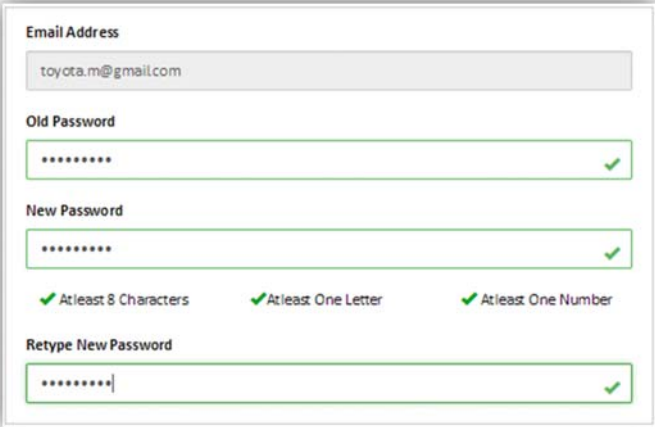
ii. Enter your registered email address



The registration form contains the following fields and validation messages:

- Email Address:** Input field containing "toyota.m@gmail.com".
- Old Password:** Input field containing "Old Password".
- New Password:** Input field containing "New Password".
- Validation Messages:** Three red 'X' icons with the following text: "Atleast 8 Characters", "Atleast One Letter", and "Atleast One Number".
- Retype New Password:** Input field containing "Confirm New Password".

- iii. Enter your old password.
- iv. Enter your new password.
- v. Enter your new password again for confirmation.



The registration form now shows success messages for the password fields:

- Old Password:** Input field with "*****" and a green checkmark.
- New Password:** Input field with "*****" and a green checkmark.
- Validation Messages:** Three green checkmarks with the following text: "Atleast 8 Characters", "Atleast One Letter", and "Atleast One Number".
- Retype New Password:** Input field with "*****" and a green checkmark.

Click the "Save" button

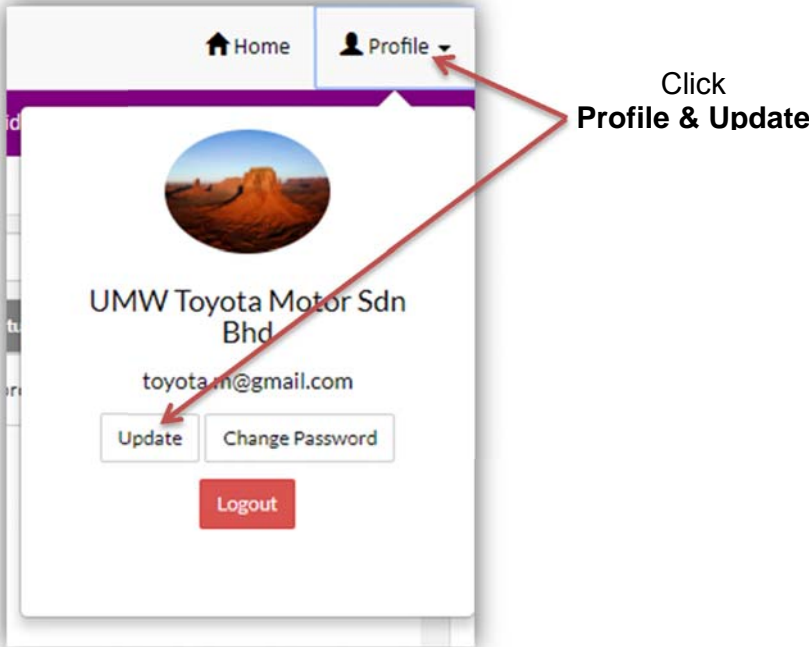
Information is stored and returned to the dashboard display "Application List". List is empty for new users



The "Application List" table is currently empty. It features a search bar at the top right and a table header with the following columns:

| No. | Ref. No. | Applicant | Type | Model | Variant | Application Date | Status |
|-----|----------|-----------|------|-------|---------|------------------|--------|
|-----|----------|-----------|------|-------|---------|------------------|--------|

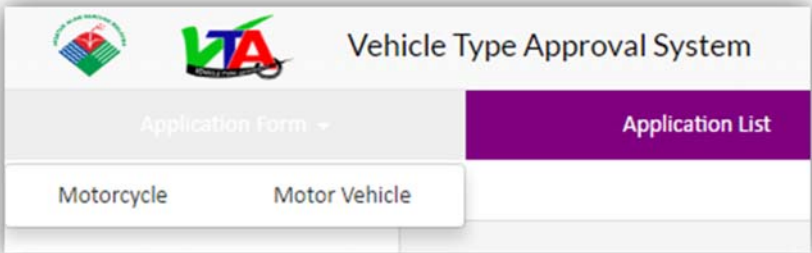
UPDATE THE USER PROFILE



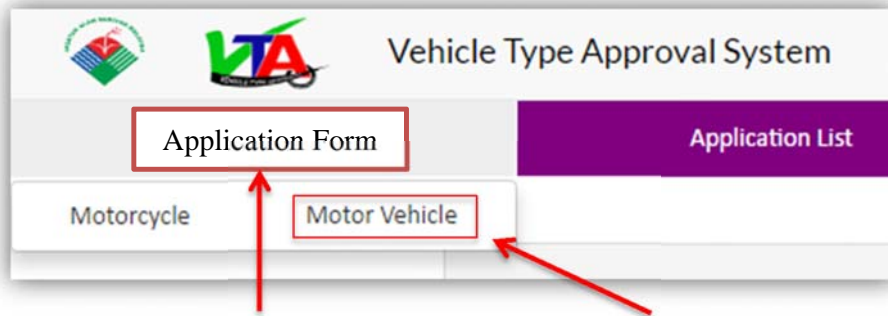
The user information displayed and change information to be updated

The screenshot shows a form titled 'UPDATE APPLICANT PROFILE'. The form is divided into two columns. The left column contains fields for 'Company Name (an Individual or a Company)' (filled with 'UMW Toyota Motor Sdn Bhd'), 'Address' (filled with '2 Persiaran Raja Muda', 'Sekyen 15', '40200 Shah Alam'), 'Country' (filled with 'Malaysia'), and 'State' (filled with 'Selangor'). The right column contains fields for 'Contact Person Name' (filled with 'Syahirah'), 'Position' (filled with 'Engineer'), 'Telephone Number' (filled with '0388712027'), 'Fax Number' (filled with '0388889964'), 'H/P Number' (filled with '0123456789'), and 'Email Address' (filled with 'toyota.m@gmail.com'). There is a 'Change Picture' button next to the profile picture and 'Back' and 'Save' buttons at the bottom right.

Click **“Save”** button and system automatically return to the *dashboard* **“Application List”**



NEW APPLICATION FOR MOTOR VEHICLE



Click **“Application Form”** and select **“Motor Vehicle”** tab

Motor Vehicle exhaust and noise emission type approval form displayed

APPLICATION FOR
MOTOR VEHICLE EXHAUST EMISSION AND NOISE EMISSION TYPE APPROVAL

Let's Start !

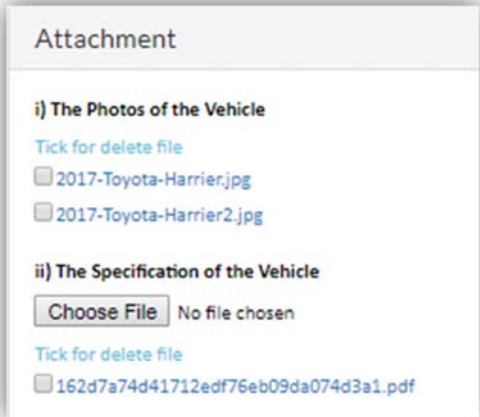
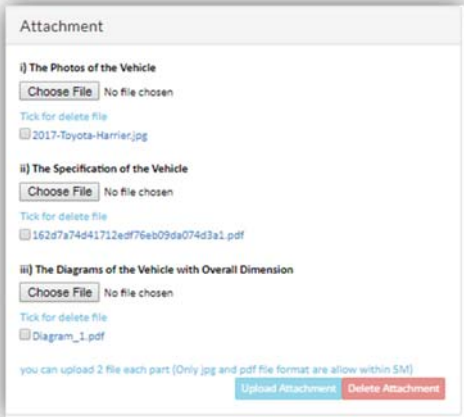
Click **“Let’s Start!”** button. System automatically goes to the section 1: **“Description of Motor Vehicle”**.

SECTION 1 – DESCRIPTION OF MOTOR VEHICLE

Fill in all the information of motor vehicle

The screenshot shows the 'VEHICLE TYPE APPROVAL SYSTEM' interface. The top navigation bar includes 'Application Form', 'Application List', 'Approval List', 'Approved List', 'Reporting', 'Guidelines', and 'Maintenance'. The main content area is divided into sections: 'Section 1: Description of Motor Vehicle', 'Section 2: Description of Engine', 'Section 3: Exhaust Emission and Noise Control Systems', 'Section 4: Exhaust Emission Test Result', 'Section 5: Noise Test Results', and 'Section 6: Declaration by Applicant'. The 'Section 1' form includes fields for Category (M or N), Production (CKD or CBU), Make (with a dropdown), Model, Model Code, Variant, Version, No. of Seats, Reference Mass, Maximum Mass / Gross Vehicle Mass (GVM), Number of Wheels, Front Tyre Dimension, and Rear Tyre Dimension. On the right, there are fields for Manufacturer Name, Address (Address 1, 2, 3), Country, and Remarks. An 'Attachment' section contains three file upload areas: 'i) The Photos of the Vehicle', 'ii) The Specification of the Vehicle', and 'iii) The Diagrams of the Vehicle with Overall Dimension'. A 'Save & Next' button is located at the bottom right.

Upload the attachment file in the Attachments Section (mandatory 1 attachment file for each item) and click “**Save & Next**” button.



Error message will be displayed if the information is not filled or wrong format file attachment. The system will not allow the applicant move to section: 2 if the information in section: 1 was not completed.

Variant

n/a
✔

Version

Version
✘

Version is required

No. of Seats (Including Driver)

Emp|
✘

Number of Seats Must be integer

SECTION 2 – DESCRIPTION OF ENGINE

Fill in all the information of engine

VEHICLE TYPE APPROVAL SYSTEM
Home Profile

Application Form
Application List
Approval List
Approved List
Reporting
Guidelines
Maintenance

Welcome

[Introduction](#)

Section 1

[Description of Motor Vehicle](#)

Section 2

[Description of Engine](#)

Section 3

[Exhaust Emission and Noise Control Systems](#)

Section 4

[Exhaust Emission Test Result](#)

Section 5

[Noise Test Results](#)

Section 6

[Declaration by Applicant](#)

Make

Engine Make

Model / Code

Model Code

Displacement

cc

Combustion System

Positive-ignition (PI) Compression-ignition (CI)

Rated Max. Engine Power Output

kW

at

rpm

Transmission

Automatic Manual Others:

No. of Forward Gear

No. of Forward Gear

Fuel Type

Unleaded Petrol Diesel NG LPG Others

Company Name & Address same as Section 1

Manufacturer Name

Company Name

Address

Address 1

Address 2

Address 3

Country

Please Select Country

Remarks

Attachment

i) The Description of the Engine

No file selected.

ii) The Diagram of the Engine

No file selected.

you can upload 2 file each part (Only jpg and pdf file format are allow within 5M)

[Save & Next](#)

Upload the attachment file in the Attachments Section (mandatory 1 attachment file for each item) and click “**Save & Next**” button.

Click the Upload Attachment button to upload the 1st attachment file before upload 2nd file (if any) .

All Information is mandatory. Error message will be displayed if the information is not filled in or wrong format file attachment.

The system will be to section: 3 if the information in section: 2 was completed

SECTION 3: EXHAUST EMISSION & NOISE CONTROL SYSTEM

VEHICLE TYPE APPROVAL SYSTEM

Application Form Application List Approval List Approved List Reporting Guidelines Maintenance

Welcome Section 1 Section 2 Section 3 Section 4 Section 5 Section 6

Introduction Description of Motor Vehicle Description of Engine Exhaust Emission and Noise Control Systems Exhaust Emission Test Result Noise Test Results Declaration by Applicant

Number of Exhaust Pipe
 1 2 3 4

Location of the Exhaust Outlet

Remarks

Exhaust Silencer(s) Yes No

Intake Silencer(s) Yes No

Catalytic Convertor Yes No

Device for Recycle Crankcase Gases Yes No

Pressure Charger(s) Yes No

Particulate Trap(s) Yes No

Exhaust Gas Recirculation Yes No

Non-Engine Devices Design to Reduce Noise Yes No

Other Anti-Pollutions Devices Yes No

Save & Next

All fields are mandatory if you select “yes”. Upload all related documents and drawing (PDF or JPG format). More than one (1) document can be uploaded at each field but must click the “Save & Upload” button first before upload the 2nd document (maximum 3 file for each item).

Intake Silencer(s) Yes No

Make

Type

Attachment: Description and Drawing of the Intake Silencer
 No file chosen
 you can upload 3 file each part (Only .jpg and .pdf file for mat are allow within 5M)

Click “**Save & Next**” button to save all record. The system will be to section: 4 if the information in section: 3 are completed.

SECTION 4 & 5: TEST REPORT

You must attach the test report (PDF or JPG format) issued by the Technical Service (TS) recognized by the UN or witness by the Approval Authority (AA) or agencies recognized by the Approval Authority (AA) if the test report issued by the applicant or manufacturer to ensure that information that was declared to be correctly and accurately. All information is mandatory even one of the test result have been certified from other member states (have been received “E-Mark”).

SECTION 4: EXHAUST EMISSION TEST RESULT

More than one (1) document can be uploaded at each field but must click the “Save & Upload” button first before upload the 2nd document.

Navigation: Welcome | Section 1: Description of Vehicle | Section 2: Description of Engine | Section 3: Exhaust Emissions and Noise Control System | **Section 4: Exhaust Emission Test Result** | Section 5: Noise Test Results | Section 6: Declaration by Applicant

Test report no.

Name of the Test Laboratory

Test Lab Name

Test/Witness Test Witness

By (Recognised Approve Authority or Technical Service)

Test/Witness by

Remarks

Name & Address (same as Section 1)

Reported By

Address

Address 1

Address 2

Address 3

Country

Please Select Country

COMPRESSION IGNITION ENGINE

Emission Standard Euro 2 Euro 3 Euro 4 Euro 5 Euro 6

Type I - Verifying the average exhaust emissions after a cold start

| Type I | CO | HC+HCH | NOx | PM | PN x 10 ¹¹ |
|--------|----------------------|----------------------|----------------------|----------------------|-----------------------|
| | mg/km | | g/km | | |
| | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

Type V - Durability of pollution control device

Type V Durability of pollution control device

Result

Attachments of Emission Test Report

no file selected.

you can upload 3 file (Only jpg and pdf file format are allow within 5M)

Click “**Save & Next**” button to save all record. The system will be to section: 5 if the information in section: 4 are completed

SECTION 5: NOISE TEST RESULT

More than one (1) document can be uploaded at each field but must click the “Save & Upload” button first before upload the 2nd document.

The screenshot shows the 'Section 5: Noise Test Results' form in the Vehicle Type Approval System. The form is divided into two main columns. The left column contains fields for: Test Report No., Name of the Test Laboratory, Reported By (Name), Address (Address 1, 2, 3), Country (Please Select Country), Test/Witness (Test or Witness), and Remarks. The right column contains noise level data for 'NOISE LEVEL OF MOTOR VEHICLE IN MOVING' and 'NOISE LEVEL OF MOTOR VEHICLE IN STATIONARY'. For the moving vehicle, Ambient Noise is 00.0 dB(A), Wind Speed is 00.0 m/s, Test Result is 00.0 dB(A), and Maximum Sound Levels is 75 dB(A). For the stationary vehicle, Ambient Noise is 00.0 dB(A), Wind Speed is 00.0 m/s, and Test Result is 00.0 dB(A). Below these fields, there is an 'Attachments of Noise Test Report' section with a 'Browse...' button and a note: 'No file selected. you can upload 3 file (Only jpg and pdf file format are allow within 5M)'. At the bottom right of the form, there is a 'Save & Next' button.

Click “**Save & Next**” button to save all record. The system will be to section: 6 if the information in section: 5 are completed

Please take care and enter this information accurately. If information you enter here are incorrect, the information on your certificate will also be incorrect.

SECTION 6: DECLARATION BY APPLICANT.

Applicants are required to certify the application. Tick the “**Agree or Disagree**” checkbox and enter the password and click “**submit**” button to complete the application.

The screenshot shows the 'VEHICLE TYPE APPROVAL SYSTEM' dashboard. The navigation menu includes: Application Form, Application List, Approval List, Approved List, Reporting, Guidelines, and Maintenance. The breadcrumb trail is: Welcome > Section 1 (Introduction) > Section 2 (Description of Motor Vehicle) > Section 3 (Description of Engine) > Section 4 (Exhaust Emission and Noise Control Systems) > Section 5 (Exhaust Emission Test Result) > Section 6 (Noise Test Results) > Declaration by Applicant.

DECLARATION BY APPLICANT
I CERTIFY THAT

- The information of the Motor Vehicle Model for Type Approval is the correct description of the Motor Vehicle or engine model under the application; and
- Adequate arrangements and prepared documented quality control plans with certification to international standard such as EN ISO 9002, or EN ISO 9001 or an equivalent standard acceptable by the Department or Environment Malaysia has been set up to ensure all vehicles and engines produced and offered for Malaysia market comply with the exhaust emission and noise emission standards.

Agree
 Disagree

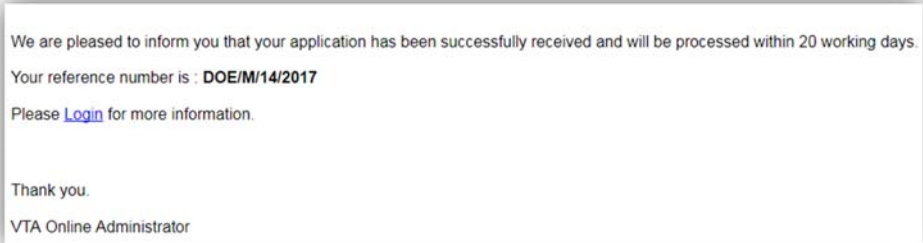
SUBMITTED APPLICATION

Applications must be made online and submitted electronically after all required steps have been completed. Applicants do not need to complete the application process in one session; Applicants can save the application file and open it with a user name and password and modify the saved (but not yet submitted) information. Scan and upload the application supporting documents (drawing, test reports, etc) through the system. Fully completed application forms must be sent by clicking on the “**Submit**” button. It is recommended that applicants check and read carefully all the information key-in the system and all the attachment documents for the application before login to the Electronic Application System. Applicants can upload more than one document but not more than 3 documents in each time of attachment. Make sure you have uploaded the scanned documents with proper format (PDF or JPG document) and size (each file not more than 5MB).

Once the process is completed, the new application and reference number will appear in the application list with the status of “In Process” in the Dashboard.

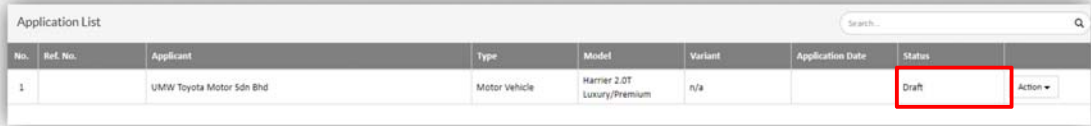
| Application List | | | | | | | | |
|------------------|---------------|--------------------------|---------------|--------------------------------|---------|-------------------------------|------------|--------|
| No. | Ref. No. | Applicant | Type | Model | Variant | Application Date | Status | Action |
| 1 | DOE/M/14/2017 | UMW Toyota Motor Sdn Bhd | Motor Vehicle | Harrier 2.0T Luxury/Premium | n/a | November 30, 2017, 3:55 pm | In Process | Action |

Applicant will receive an e-mail stating that the application will be processed within 20 working days.



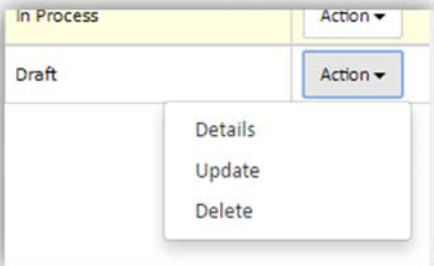
DRAFT STATUS

Applicants occasionally do not fully complete their application and the application remains in draft status without reference number. This application still can be update or deleted by the applicant.

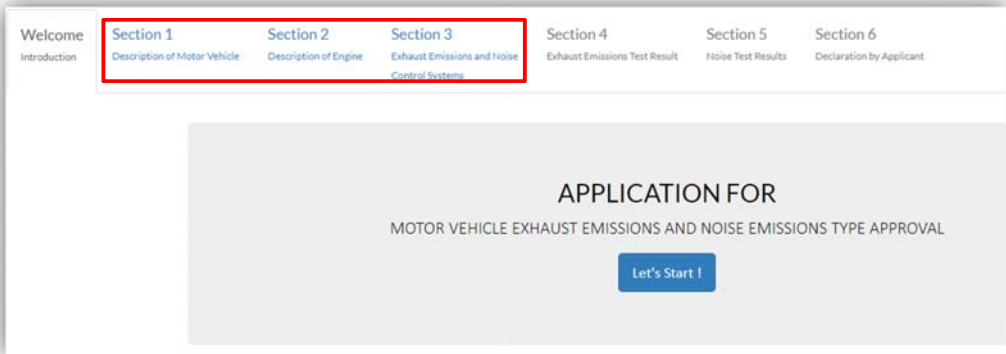


| No. | Ref. No. | Applicant | Type | Model | Variant | Application Date | Status | Action |
|-----|----------|--------------------------|---------------|--------------------------------|---------|------------------|--------|----------|
| 1 | | UMW Toyota Motor Sdn Bhd | Motor Vehicle | Harrier 2.0T Luxury/Premium | n/a | | Draft | Action ▾ |

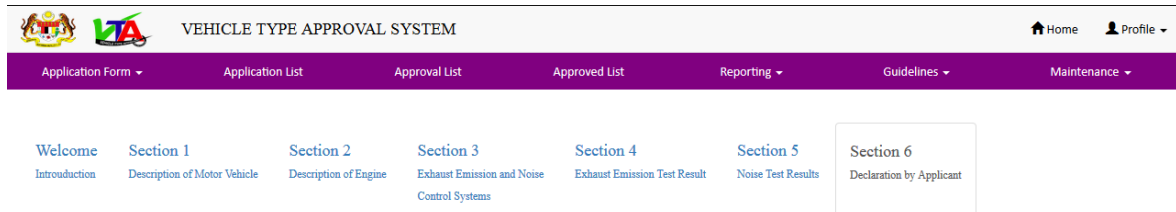
Click the Action dropdown button and select Details, Update or Delete.



Blue tab is information that has been filled



After all the information completed click **“Save & Next”** button. Tick the **“Agree or Disagree”** checkbox and enter the password and click **“submit”** button to complete the application in section: 6.



DECLARATION BY APPLICANT

I CERTIFY THAT

1. The information of the Motor Vehicle Model for Type Approval is the correct description of the Motor Vehicle or engine model under the application; and
2. Adequate arrangements and prepared documented quality control plans with certification to international standard such as EN ISO 9002, or EN ISO 9001 or an equivalent standard acceptable by the Department or Environment Malaysia has been set up to ensure all vehicles and engines produced and offered for Malaysia market comply with the exhaust emission and noise emission standards.

- Agree
 Disagree

The application dashboard will show in the status of **“In Process”**. Applicant will receive an e-mail stated the application will be processed within 20 working days.

RETURNING APPLICATIONS

The application will be returned to the applicant if the processing officer is required further information or justification on the document and information in the application. Messages will be sent to applicants by e-mail as notification and further action is needed by applicant.


For your information, we need additional information and further clarification for your application. We will continue to process your application within 20 working days upon receipt the additional information as requested

Please [Login](#) for more information.

Thank you.

VTA Online Administrator

The “Application List” will show “**Redraft**” status. The redraft can be updated but cannot be deleted.

| Status |
|---|
| Redraft  |
| 1 pm Approved |

Click on the alert notification to view the comments from the DOE processing officer.

PE APPROVAL SYSTEM


Comments

Action: Return to Applicant

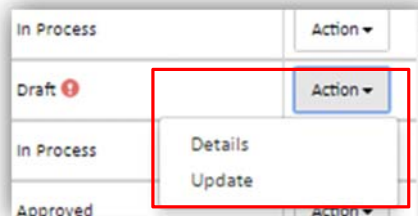
- Section 1
 - perlukan attachment tambahan untuk specification
- Section 3
 - lampirkan maklumat tambahan untuk **exhaust silencer**
 - description exhaust gas recirculation tidak jelas
- Section 5
 - test result melebihi maximum sound level
 - nilai ambient noise level in stationary tidak sama seperti nilai pada lampiran

* sebarang komen sila nyatakan pada **Remarks**

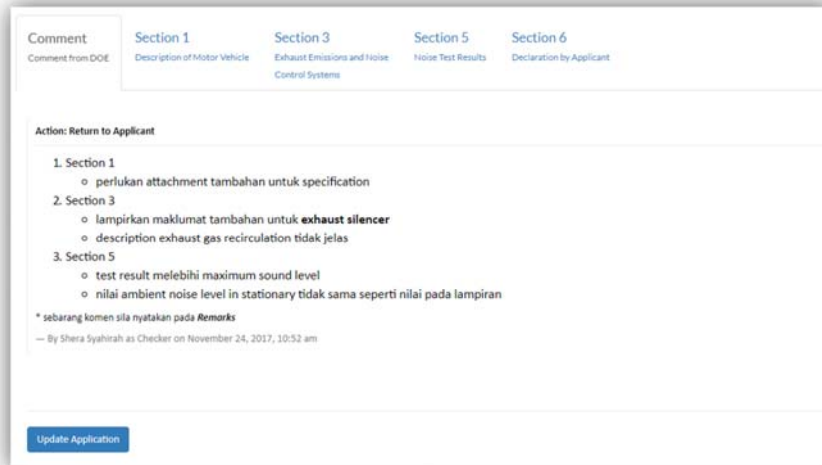
— By Shera Syahirah as Checker on November 24, 2017, 10:52 am



Click the Action dropdown button and select Update



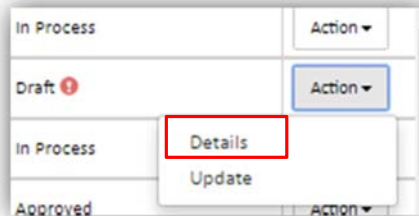
The system only displays the parts that need to be updated. (blue color)



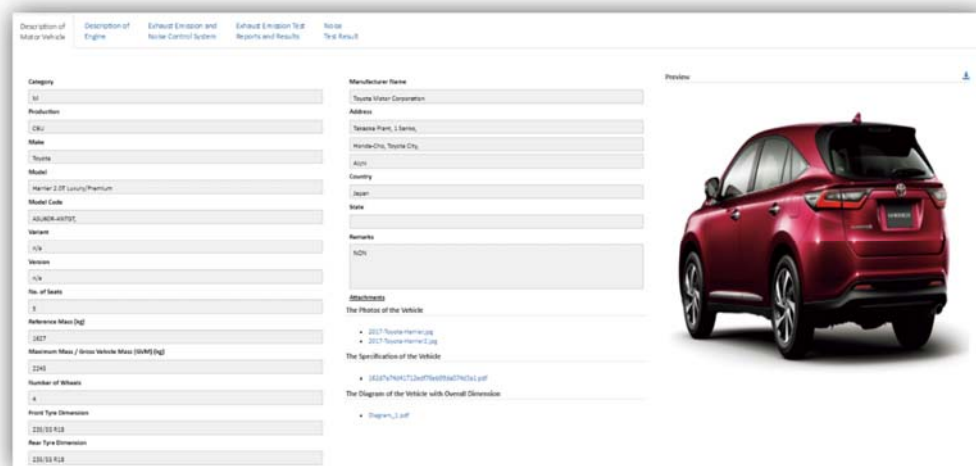
Once completed, the display will return to the dashboard and the application status will change to “In Process”.

INFORMATION APPLICATIONS

Click the “**Action**” dropdown button and select “**Details**”



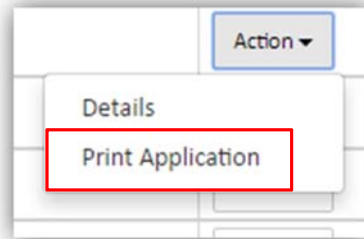
Application information is displayed according with the section.



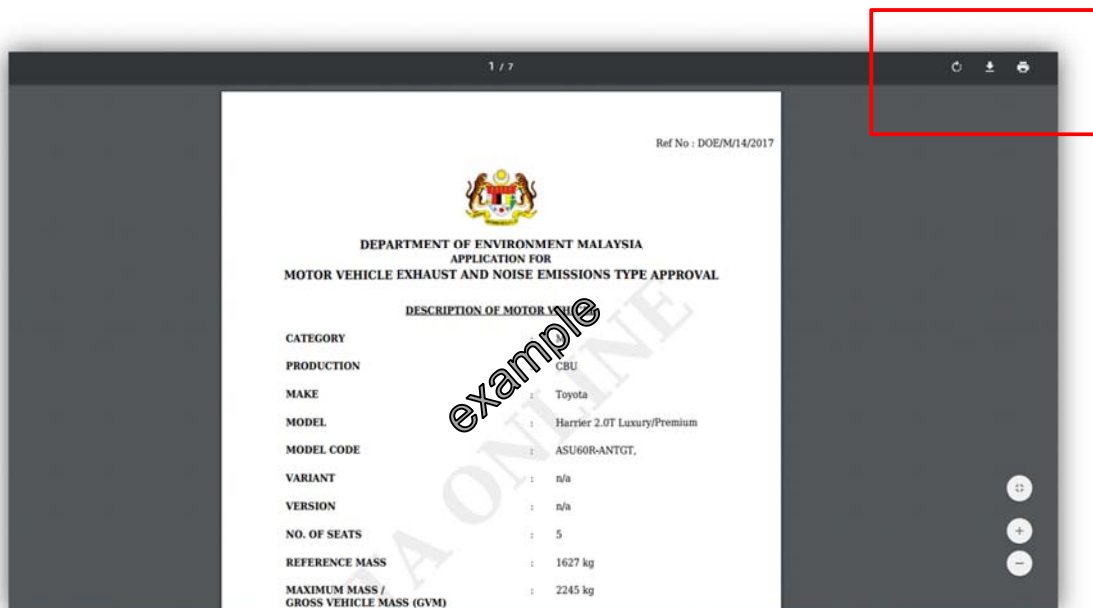
SAVE AND PRINT THE APPLICATION INFORMATION

All submitted and approved application can be saved and printed for personal record.

Click the **“Action”** dropdown button and select **“Print Application”**



The application information will be displayed in PDF format.



Note: Only the attachment file name will be displayed on the pdf file.

APPROVAL CERTIFICATE

Once the application is approved, notification message will be sent through the system to the applicants via e-mail.

Your application has been **APPROVED** with the certificates number as **DOE/TAE(N)/2017/6** for exhaust and **DOE/TAS(N)/2017/6** for noise emission type approval.

Please [Login](#) for more information.

Thank you.

VTA Online Administrator

The application list dashboard will change the application status to “Approved”. Applicants can review and print both the noise and gaseous emission certificate.

| Application List | | | | | | | | Search... |
|------------------|---------------|--------------------------|---------------|-----------------------------|---------|----------------------------|----------|-----------|
| No. | Ref. No. | Applicant | Type | Model | Variant | Application Date | Status | |
| 1 | DOE/M/14/2017 | UMW Toyota Motor Sdn Bhd | Motor Vehicle | Harrier 2.0T Luxury/Premium | n/a | November 30, 2017, 3:55 pm | Approved | Action ▾ |

Click the Action button and select Noise or Emission Information. The certificate also will be sent to the secretariat national VTA (RTD) via online in PDF format.

If application is rejected.

Your application has been rejected.

Please [Login](#) for more information.

Thank you.

VTA Online Administrator

**VEHICLE TYPE APPROVAL CERTIFICATE
(EMISSION)**

No Sijil : DOE/TAE(M)/2017/9



**JABATAN ALAM SEKITAR
SIJIL KELULUSAN PELEPASAN GAS
BAGI KENDERAAN MOTOR BERENJIN PETROL**

UMW TOYOTA MOTOR SDN BHD

*2 Persiaran Raja Muda
Seksyen 15
40200 Shah Alam
SELANGOR, MALAYSIA*

| | | |
|---------------------------------------|---|---|
| MODEL KENDERAAN | : | Harrier 2.0T Luxury/Premium |
| KOD MODEL | : | ASU60R-ANTGT, |
| MODEL ENJIN | : | 8AR-FTS |
| NO. LAPORAN UJIAN | : | H1760614850/002 |
| LAPORAN UJIAN DIKELUARKAN OLEH | : | <i>Toyota Motor Corporation Takaoka Plant, 1 Sanko, Honda-Cho, Toyota City, Aichi JAPAN</i> |
| KEPUTUSAN UJIAN | : | CO: 0.3 mg/km HC: 0.0 mg/km NOx: 0.0 mg/km |
| STANDARD PEMATUHAN | : | Euro 4 |

Signature
CLUB

(MOHD SAPUAN SHAIB)
b.p Ketua Pengarah Kualiti Alam Sekeliling Malaysia
4 DISEMBER 2017

**VEHICLE TYPE APPROVAL CERTIFICATE
(NOISE)**

No Sijil : DOE/TAS(M)/2017/9



**JABATAN ALAM SEKITAR
SIJIL KELULUSAN PELEPASAN BUNYI BISING
BAGI KENDERAAN MOTOR BERENJIN PETROL**

UMW Toyota Motor Sdn Bhd

*2 Persiaran Raja Muda
Seksyen 15
40200 Shah Alam
Selangor, Malaysia*

| | | |
|---------------------------------------|---|---|
| MODEL KENDERAAN | : | Harrier 2.0T Luxury/Premium |
| KOD MODEL | : | ASU60R-ANTGT, |
| MODEL ENJIN | : | 8AR-FTS |
| NO. LAPORAN UJIAN | : | H1760161643/306 |
| LAPORAN UJIAN DIKELUARKAN OLEH | : | <i>Toyota Motor Corporation Takaoka Plant, 1 Sanko, Honda-Cho, Toyota City, Aichi Japan</i> |
| KEPUTUSAN UJIAN | : | 67.0 dB(A) |
| STANDARD PEMATUHAN | : | 75 dB(A) |

Signature
CLUB

(MOHD SAPUAN SHAIB)
b.p Ketua Pengarah Kualiti Alam Sekeliling Malaysia
4 DISEMBER 2017

GASEOUS POLLUTANT & NOISE EMISSION LIMITS

All new or existing models of motor vehicles that seeking type approval in Malaysia will have to comply with the requirements of the exhaust emission and noise emission standards;

EXHAUST EMISSION STANDARDS FOR PETROL ENGINE

| PETROL | | | |
|----------------------------------|-----------------------|--|--|
| EXHAUST EMISSION | | EURO II | EURO IV |
| CATEGORY OF VEHICLE | | M and N1 | M and N1 |
| IMPLEMENTATION | NEW MODEL | Current implementation since 01 January 2000 | 1) 18 months grace period after the availability of RON95 Euro4M fuel nationwide; or 2) Tentative date: 1 April 2020 |
| | EXISTING MODEL | Current implementation since 01 November 1996. | 1) 36 months grace period after the availability of RON95 Euro4M fuel nationwide; or 2) Tentative date: 1 Oct 2021 |
| REGULATION STANDARD | | (1) UN R83-03 or (2) Directive 94/12/EC, or (3) Directive 96/69/EC | (1) UN R83-05, or (2) Directive 70/220/EEC as amended by 98/69/EC and 2003/76/EC |
| TEST REQUIREMENT | | Type I (Refer to Table 1) | (1) Type I (UN R83-05(B) limit values) (Refer to Table 2) (2) Type II (applicable to vehicles having a maximum mass > 3.5t) (Refer Table 3) (3) Type III (Refer to Table 4) (4) Type V (Refer to Table 5) |
| On Board Diagnostic (OBD) | | Not Applicable | Optional |
| COP | | Not Applicable | Yes DOE and MAA to have a discussion with SIRIM QAS to set up a mechanism similar to green diesel engine to verify the engine components |

Table 1
Euro II Exhaust Emission Limit Values for Petrol Engine
 Type I – Verifying the average exhaust emission after a cold start:

| Category of vehicle | Vehicle Class | Reference Mass, (RW) | Limit values | |
|--|---------------|------------------------|------------------------------|---|
| | | | Mass of Carbon Monoxide (CO) | Combined mass of Hydrocarbons and Nitrogen Oxides (HC + NO _x) |
| M (Maximum mass ≤ 2.5 tonnes) | – | All | 2.2 g/km | 0.5 g/km |
| M (Maximum mass > 2.5 tonnes, ≤ 3.5 tonnes), N1 | Class I | RW ≤ 1250 kg | 2.72 g/km | 0.97 g/km |
| | Class II | 1250 kg ≤ RW ≤ 1700 kg | 5.17 g/km | 1.4 g/km |
| | Class III | 1700 kg < RW | 6.9 g/km | 1.7 g/km |

Table 2
Euro IV Exhaust Emission Limit Values for Petrol Engine
 Type I – Verifying the average exhaust emission after a cold start:

| Category of vehicle | Vehicle Class | Reference Mass, (RW) | Limit values | | |
|---|---------------|------------------------|------------------------------|---------------------------|---|
| | | | Mass of Carbon Monoxide (CO) | Mass of Hydrocarbons (HC) | Mass of Oxides of Nitrogen (NO _x) |
| M (Maximum mass ≤ 2.5 tonnes) | | All | 1.0 g/km | 0.10 g/km | 0.08 g/km |
| M (Maximum mass > 2.5 tonnes, ≤ 3.5 tonnes) N1 | Class I | RW ≤ 1305 kg | 1.0 g/km | 0.10 g/km | 0.08 g/km |
| | Class II | 1305 kg ≤ RW ≤ 1760 kg | 1.81 g/km | 0.13 g/km | 0.10 g/km |
| | Class III | 1760 kg < RW | 2.27 g/km | 0.16 g/km | 0.11 g/km |

Table 3
Euro IV Exhaust Emission Limit Values for Petrol Engine
 Type II – Carbon monoxide emission test at Idling Speed

| Scope | Limit |
|--|--|
| a) This test is carried out on all vehicles powered by positive-ignition engines having maximum mass exceeding 3.5 tonnes; Follows item 5.3.2.1 of R83-05; b) Vehicles that can be fuelled either with petrol or LPG or NG should be tested in Type II test on both fuels; Follows item 5.3.2.1 of R83-05; c) Vehicle that can be fuelled with either petrol or a gaseous fuel but where the petrol system is fitted for emergency purposes or starting only and which the petrol tank cannot contain more than 15 litres of petrol will be regarded for the test Type II as vehicles that can only run on a gaseous fuel; Follows item 5.3.2.1 of R83-05; | Carbon monoxide (CO) content by volume of the exhaust gases emitted with the engine idling shall not exceed 3.5% at the setting specified by the manufacturer and shall not exceed 4.5% within the range of adjustments specified in Annex 5 of R83.05 |

Table 4
Euro IV Exhaust Emission Limit Values for Petrol Engine
 Type III – Verifying emission of crankcase gases:

| Scope | Requirement |
|---|--|
| a) Vehicles that can be fuelled either with petrol or LPG or NG should be tested in Type III test on both fuels; b) Vehicle that can be fuelled with either petrol or a gaseous fuel but where the petrol system is fitted for emergency purposes or starting only and which the petrol tank cannot contain more than 15 litres of petrol will be regarded for the test Type II as vehicles that can only run on a gaseous fuel; | When tested in accordance with Annex 6 of R83-05, the engine's crankcase ventilation system shall not permit the emission of any of the crankcase gases into the atmosphere. |

Table 5
Euro IV Exhaust Emission Limit Values for Petrol Engine
 Type V – Durability of pollution control devices:

| Scope | Requirement |
|--|--|
| a) The test shall be carried out on all vehicles having a maximum mass not exceeding 3.5 tonnes b) Vehicles that can be fuelled either with petrol or with LPG or NG should be tested in Type V test on petrol only. In that case the deterioration factor found with unleaded petrol will also be taken for LPG and NG | The test shall be carried out according to the procedure and limit specified in Type I test. This test represents an ageing test of 80,000 km driven in accordance with the programme described in relevant Annex of ECE Regulation No.83.05 on a test track, on the road or on a chassis dynamometer ⁽⁵⁾ . |

Note:

⁽¹⁾A manufacturer may choose to have the Deterioration Factors (DF) from the following table used as an alternative to Type V test.

| | CO | HC | NOx |
|---|-----|-----|-----|
| Deterioration Factors (DF) for Positive-Ignition Engine | 1.2 | 1.2 | 1.2 |

EXHAUST EMISSION STANDARDS FOR DIESEL ENGINE

| DIESEL | | | | | |
|----------------------------|-----------------------|--|--|---|--|
| EXHAUST EMISSION | | EURO II | | EURO IV | |
| CATEGORY OF VEHICLE | | M (Maximum Mass \leq 3.5 tonnes) and N1 | M (Maximum Mass $>$ 3.5 tonnes); N2; N3 | M (Maximum Mass \leq 3.5 tonnes) and N1 | M (Maximum mass $>$ 3.5 tonnes); N2; N3 |
| IMPLEMENTATION | NEW MODEL | 1 January 2017 | | 1) 18 months grace period after the availability of Euro 5 diesel nationwide; or 2) Tentative date: 1 March 2022 | |
| | EXISTING MODEL | Not applicable | | 1) 36 months grace period after the availability of Euro 5 diesel nationwide; or 2) Tentative date: 1 Sep 2023 | |
| REGULATION STANDARD | | (1) UN R83-03; Or (2) Directive 94/12/EC; Or (3) Directive 96/69/EC | (1) UN R49-02 (B); Or (2) Directives 88/77/EEC as amended by 91/542/EEC and 96/1/EEC | (1) UN R83-05 (B); Or (2) Directive 70/220/EEC as amended by 98/69/EC and 2003/76/EC | (1) UN R49-05 (B1); Or (2) Directive 1999/96/EC; Or (3) Directives 2005/55/EC; Or (4) Directives 2005/78/EC; Or (5) Directives 2006/51/EC |
| TEST REQUIREMENT | | Type I Refer to Table 6 | 13-mode steady-state diesel engine test (To follow R49-02(B) limit values) Refer to Table 7 | (1) Type I (To follow R83-05(B) limit values Refer to Table 8 (2) Type V Refer to Table 9 | (1)* European Steady- State Cycle (ESC); and (2)* European Load Response (ELR) Test Cycle; and [(1)* and (2)* to follow UN R49-05 (B1) limit values] refer to Table 10 (3)* European Transient Cycle (ETC) [(3)* to follow UN R49-05 (B1) limit values] refer to Table 11 |

| | | | |
|---------------------------|----|----|--|
| On Board Diagnostic (OBD) | No | No | Optional |
| COP | No | No | Follow the SIRIM inspection report of green diesel engine (need further discussion). |

Table 6
Euro II Exhaust Emission Limit values for Diesel Engine
Type I – Verifying the average exhaust emission after a cold start

| Category of vehicle | Vehicle Class | Reference Mass, (RW) | Limit values | | | | |
|--|---------------|--|------------------------------|---|--------------------|----------------------|--------------------|
| | | | Mass of Carbon Monoxide (CO) | Combined mass of Hydrocarbons and Oxides of Nitrogen (HC + NOx) | | Mass of Particulates | |
| | | | | Direct Injection | Indirect Injection | Direct Injection | Indirect Injection |
| M (Maximum Mass ≤ 2.5 tonnes) | - | All | 1.0 g/km | 0.9 g/km | 0.7 g/km | 0.10 g/km | 0.08 g/km |
| M (Maximum Mass > 2.5 tonnes, ≤ 3.5 tonnes) | Class I | $RW \leq 1250 \text{ kg}$ | 1.0 g/km | 0.9 g/km | 0.7 g/km | 0.10 g/km | 0.08 g/km |
| | Class II | $1250 \text{ kg} \leq RW \leq 1700 \text{ kg}$ | 1.25 g/km | 1.3 g/km | 1.0 g/km | 0.14 g/km | 0.12 g/km |
| N1 | Class III | $1700 \text{ kg} < RW$ | 1.5 g/km | 1.6 g/km | 1.2 g/km | 0.20 g/km | 0.17 g/km |

Table 7
Euro II Exhaust Emission Limit values for Diesel Engine
13-mode steady-state diesel engine test (vehicle's maximum mass > 3.5 tonnes)

| Parameters | Mass of carbon monoxide (CO) | Mass of hydrocarbons (HC) | Mass of oxides of nitrogen (NOx) | Mass of particulates |
|--------------|------------------------------|---------------------------|----------------------------------|----------------------|
| Limit values | 4.0 g/kWh | 1.1 g/kWh | 7.0 g/kWh | 0.15 g/kWh |

Table 8
Euro IV Exhaust Emission Limit values for Diesel Engine
 Type I – Verifying the average exhaust emission after a cold start

| Category of vehicle | Vehicle Class | Reference Mass, (RW) | Limit values | | | |
|---|---------------|------------------------|------------------------------|----------------------------------|--|----------------------|
| | | | Mass of Carbon Monoxide (CO) | Mass of Oxides of Nitrogen (NOx) | Combined mass of Hydrocarbons (HC+NOx) | Mass of particulates |
| M (Maximum Mass ≤ 2.5 tonnes) | – | All | 0.50 g/km | 0.25 g/km | 0.03 g/km | 0.025 g/km |
| M (Maximum Mass > 2.5 tonnes ≤ 3.5 tonnes) | Class I | RW ≤ 1305 kg | 0.50 g/km | 0.25 g/km | 0.03 g/km | 0.025 g/km |
| | Class II | 1305 kg ≤ RW ≤ 1760 kg | 0.63 g/km | 0.33 g/km | 0.39 g/km | 0.04 g/km |
| | N1 | 1760 kg < RW | 0.74 g/km | 0.39 g/km | 0.46 g/km | 0.06 g/km |

Table 9
Euro IV Exhaust Emission Limit values for Diesel Engine
 Type V – Durability of pollution control devices:

| Scope | Requirement |
|--|--|
| The test shall be carried out on all vehicles having a maximum mass not exceeding 3.5 tonnes | The test shall be carried out according to the procedure and limit specified in Type I. This test represents an ageing test of 80,000 km driven in accordance with the programme described in Annex 9 of UN Regulation No.83.05 on a test track, on the road or on a chassis dynamometer ⁽¹⁰⁾ . |

Note:

- ⁽²⁾ A manufacturer may choose to have the Deterioration Factors (DF) from the following table used as an alternative to Type V.

| | CO | HC | NOx | HC + NOx | Particulates |
|--|-----|----|-----|----------|--------------|
| Deterioration Factors for Compression-Ignition Engines | 1.1 | - | 1 | 1 | 1.2 |

Table 10

**Euro IV Exhaust Emission Limit values for Diesel Engine
European Steady-State Cycle (ESC) and European Load Response (ELR) Test Cycle**

| Parameters | Mass of carbon monoxide (CO) | Mass of hydrocarbons (HC) | Mass of oxides of nitrogen (NOx) | Mass of particulates | Smoke, |
|--|------------------------------|---------------------------|----------------------------------|----------------------|---------------------|
| Limit values as specified by UN R49-05(B1) | 1.5 g/kWh | 0.46 g/kWh | 3.5 g/kWh | 0.02 g/kWh | 0.5 m ⁻¹ |

Table 11

**Euro IV Exhaust Emission Limit values for Diesel Engine
European Transient Cycle (ETC)**

| Parameters | Mass of carbon monoxide (CO) | Mass of Non-methane Hydrocarbons (NMHC) | Mass of Methane (CH ₄) (Applicable to natural gas engine only) | Mass of oxides of nitrogen (NOx) | Mass of particulates (Not applicable to gas fuelled engine) |
|--|------------------------------|---|--|----------------------------------|---|
| Limit values as specified by UN R49-05(B1) | 4.0 g/kWh | 0.55 g/kWh | 1.1 g/kWh | 3.5 g/kWh | 0.03 g/kWh |

**NOISE EMISSION STANDARDS FOR NEW MODEL MOTOR VEHICLES
WITH MORE THAN THREE-WHEELED
(VEHICLE IN MOTION)**

| | Vehicle Categories | | Maximum Sound Levels |
|-----|---|---|----------------------|
| (1) | Used for the carriage of passengers and comprising not more than 9 seats (including the driver's seat) | | 74 dB (A) |
| (2) | Used for the carriage of passengers having more than 9 seats, including the driver's seat, and a maximum authorized mass of more than 3.5 tonnes metric | (a) with an engine power less than 150 kw | 80 dB (A) |
| | | (b) with an engine power of 150 kw or more | 83 dB (A) |
| (3) | Used for the carriage of passengers and goods, having more than 9 seats, including the driver's seat | (a) with a maximum authorized mass not exceeding 2 tonnes metric | 76 dB (A) |
| | | (b) with a maximum authorized mass greater than 2 tonnes metric but not exceeding 3.5 tonnes metric | 77 dB (A) |
| (4) | Used for transport of goods with a maximum authorized mass exceeding 3.5 tonnes metric | with an engine power less than 75 kW | 81 dB (A) |
| | | with an engine power of 75kW or above but less than 150kW | 83 dB (A) |
| | | with an engine power of 150kW or above | 84 dB (A) |

Note:

1. For Item (1) and Item (3), equipped with a compression-ignition engine and direct-ignition internal combustion engine, the limit values shall be increased by 1dB(A).
2. For vehicle type designated for off-road use and with a maximum authorised mass above 2 t, the limit values shall be increased:
 - a). By 1 dB(A) if they are equipped with an engine having a power of less than 150kW (ECE); or
 - b). By 2 dB(A) if they are equipped with an engine having a power of 150kW (ECE) and above
3. For vehicle types mentioned in Item (1), fitted with gearbox having more than four forward gears and equipped with an engine developing a maximum power greater than 140kW (ECE) and having a maximum-power/maximum-mass greater than 75 kW/t, the limit value shall be increased by 1dB(A), if the speed at which the rear of the vehicle passes the Line BB in third gear is greater than 61km/h.