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# National Conservation Council

Department of Environment  
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SIGNATURE  
of Issuing Officer  
required here for validation

*Cayman Islands Environmental Centre . 580 North Sound Road .  
PO BOX 10202GT . George Town . KY1-1106 . CAYMAN ISLANDS  
TEL: (345) 949 8469 . FAX: (345) 949 4020 . www.DoE.ky*

## IMPORT &/OR RELEASE OF ALIEN OR GENETICALLY ALTERED SPECIES

Once date-stamped and signed by the by the Department of Environment on behalf of the National Conservation Council, this permission constitutes

- 1) Advice to the Department of Agriculture on the application to import alien or genetically altered species;
- 2) Permission or denial to release alien or genetically altered species.

<b>APPLICANT NAME</b>	Dr. William Petrie
<b>POSITION</b>	Director
<b>INSTITUTION</b>	Mosquito Research & Control Unit
<b>ADDRESS</b>	Marco Giglioli Centre 99 Red Gate Road PO Box 486 Grand Cayman KY1-1106 Cayman Islands
<b>PHONE</b>	949-2557
<b>EMAIL</b>	<a href="mailto:William.Petrie@gov.ky">William.Petrie@gov.ky</a>
<b>Intended Date Of Importation</b>	Beginning in March 2017

Please submit application electronically, in MS Word form, via email to [DoE@gov.ky](mailto:DoE@gov.ky).

Under the National Conservation Law and the Animals and Plants Laws the import and release of alien or genetically altered species without permission of the Department of Agriculture and the National Conservation Council respectively is illegal.

**This Permit serves as**

- 1) Advice to the Department of Agriculture on the application to import alien or genetically altered species;
- 2) Permission or denial to release alien or genetically altered species.

1. SPECIES & QUANTITIES TO BE IMPORTED			
row	Species Common Name	Species Scientific Name	Quantity
1	Yellow fever mosquito	<i>Aedes aegypti (OX513A)</i>	Up to 2 Kg (eggs) / month
2			
3			

Add rows as necessary, or attach list separately.

For those species which are IUCN listed certification of captive breeding or sustainable harvest should be provided along with application to import.

2. PURPOSE OF IMPORT			
	Pet		Breeding
X	Display		Farming or other consumption
	Human Interaction		Retail
X	Other: <i>Aedes aegypti</i> population control		

Tick as appropriate. Fill in if other purposes.

3. LOCATION WHERE SPECIES WILL BE KEPT
<p>OX513A eggs will be shipped from Oxitec Limited in the UK in regular shipments to support MRCU program requirements in the Cayman Islands. Following clearance and release of the shipments at Cayman customs, eggs will be transported and stored at the central MRCU compounds, 99 Red Gate Road, George Town, Grand Cayman until additional insectary capacity is established. Eggs may be processed through to adult stages at existing facilities located at MRCU compounds, or further distributed to a satellite production insectary(s) located within the Cayman Islands.</p> <p>As a continuation to the OX513A <i>Aedes aegypti</i> control program underway in West Bay under existing permission from the Cayman Department of the Environment (DoE), the programmatic use of OX513A is proposed island wide for Grand Cayman, and beyond in other areas of the Cayman islands as emerging <i>Aedes aegypti</i> threats are identified by the MRCU. A staged expansion of the</p>

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program across Grand Cayman, including the expansion of OX513A production capacity is foreseen.

Current program activities are described in Standard Operating Procedures (SOPs), which will be adapted as needed as operational scale increases and additional production is required to support program activities.

Community engagement activities may entail the use of male OX513A transported to various sites in mesh cages for display purposes whereby male OX513A are not intentionally released. Periodic entry of a human volunteer hand may take place through a mesh entry sleeve to demonstrate the non-biting nature of male OX513A, and the mesh entry sleeve is otherwise kept knotted. At the end of their use, the cages containing OX513A males are placed at -15 degrees Celsius or colder for more than 12 hours prior to disposal of the insect material.

A general description of the activities being proposed/requested/permited.

#### 4. BIOSECURITY MEASURES

Biosafety Standard Operating Procedures (SOP) are in place and staff will be trained to ensure conformance with these standards.

The production facilities will incorporate certain elements of Arthropod Containment Level 2 (ACL-2) standards appropriate to the chosen facility design for the specific stages of program expansion. Mosquito life stages not used for the release or other procedures are frozen below -15°C for more than 12 hours and disposed of.

Additional Biosecurity measures unique to the OX513A strain have been described in permission issued by the Department of the Environment (DoE) June 8<sup>th</sup>, 2016. There has been no additional information since that time which warrants increased biosecurity measures for the OX513A program.

Indicate whether biosecurity measures (anti-escape & species/people security) are in place or intended.

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## 5. HEALTH & SAFETY CONSIDERATIONS / MEASURES TAKEN

Health and safety considerations have been described in permission issued by the Department of the Environment (DoE) June 8<sup>th</sup>, 2016. There has been no additional information which increases the health and safety risk profile of the OX513A program since that time.

## 6. LOCATION WHERE SPECIES WILL BE RELEASED

Releases are planned to expand over the entire island of Grand Cayman by 2019 through a staged roll-out of the program over an approximately 18-24 month period once additional production insectary capacity is established. Additionally, in response to surveillance and monitoring, other areas in the Cayman Islands such as Cayman Brac would be prioritised for treatment if the MRCU deems the OX513A program would be best suited for deployment in those areas.

The timing of OX513A releases will be in response to the local population levels of *Aedes aegypti*, which will vary according to seasonality, and response to the OX513A releases and other controls in the context of Integrated Vector Management (IVM).

Once suppression targets are achieved in a treatment area, release rates may be adjusted to a lower level maintenance phase release rate.

Standard Operating Procedures (SOPs) establish record keeping requirements whereby release points are recorded and retained on file, and as the program expands, release points are mapped and planned in advance. MRCU will provide notification to the DoE in advance of expansion activities, concurrent with community engagement activities in proposed areas for program expansion.

Descriptions have been given in the permission issued by the Department of the Environment (DoE) June 8<sup>th</sup>, 2016 under the headings *Releases, Monitoring, Fluorescent Marker, Other Measures, and Dispersal*. The descriptions provided therein remain valid, with the exception that the untreated comparator site referred to will eventually be subject to treatment consistent with the goal of island wide suppression of *Aedes aegypti*.

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A general description of the activities being proposed/requested/permited.

#### 7. OTHER RELEVANT INFORMATION TO BE CONSIDERED

The permission issued by the Department of the Environment (DoE) June 8th, 2016 outlines other relevant information to be considered at the time when the application was made. The information therein remains relevant and no new information which substantively changes the environmental or human and animal risk profile has been identified.

The use of *Aedes aegypti* OX513A as a control for local *Aedes aegypti* has been under evaluation by the MRCU in Grand Cayman through various stages from early field trials in 2009-2010, to the current early stage operational project which began releases in July 2016. The MRCU is now well positioned to oversee, in collaboration with Oxitec Ltd, the programmatic deployment of the OX513A *Aedes aegypti* as required across the Cayman Islands.

By signing my initials to each line, I, <b>The Applicant</b> , confirm that I have read, understand, and agree to the following:		<b>Applicant Initials</b>
1.	I will conduct my actions as described in this document, and will abide by the terms set forth in this agreement. Imported species will be used only for the reasons listed above. Any change of use of these species should be reviewed by the Department of Environment on behalf of the National Conservation Council, and the Department of Agriculture.	<b>WP</b>
2.	I will get the permission of and abide by all requirements of the Department of Agriculture before importing any alien species.	<b>WP</b>
3.	I will follow all procedures required by the Cayman Islands Government Department of Environment, as set out in this permission.	<b>WP</b>
4.	There will be no unpermitted release of live organisms or their offspring (if incidental reproduction occurs) or viable material, e.g., seeds, cuttings, etc., into any uncontrolled environment, either natural or artificial, of the Cayman Islands.	<b>WP</b>
5.	To avert possible introduction of exotic parasites or diseases, as well as offspring, there will be no discharge of effluents, disposal of waste, transport or housing media or other materials associated with the alien species or disposal of diseased or dead organisms or parts thereof except via lawful municipal waste discharge or disposal methods, i.e., sewage or garbage disposal.	<b>WP</b>
6.	These conditions follow the specimens imported and applicant should inform recipients of specimens (offspring, retail sale, etc.) of the above stipulations.	<b>WP</b>
7.	I understand that previous import permission for a listed or related species does not mean continuing permission to import nor does it mean that future permission to import will necessarily be granted.	<b>WP</b>

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I, **The Applicant**, undersigned, confirm that I have read, understand, and agree to abide by the permissions, conditions or denials outlined in this document.

<b>SIGNATURE OF APPLICANT</b>	<b>DATE</b>

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**FOR OFFICIAL USE ONLY:**

<b>IMPORT PERMISSION GRANTED</b>	<b>YES / PARTIAL / NO</b>
<b>RELEASE PERMISSION GRANTED</b>	<b>YES / PARTIAL / NO</b>
<b>REQUIREMENTS, RESTRICTIONS or REASONS FOR DENIAL</b>	
<b>NAME OF ISSUING OFFICER</b>	<b>DATE</b>
<b>SIGNATURE OF ISSUING OFFICER</b>	<b>DATE STAMP</b>
<b>ON BEHALF OF THE NATIONAL CONSERVATION COUNCIL</b>	
Gina Ebanks-Petrie, Director, Department of Environment	

**SPECIES RECOMMENDATIONS**

row	Species Scientific Name	Quantity	Import	Release
1				
2				
3				

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