THE LIFE OF THE BEACH

27. July. 2010

Project Manager
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RE: Consultation Regulation Impact Statement –
"Reducing Emissions From Non-Road Spark Ignition Engines and Equipment"

To Whom It May Concern,

Surf Life Saving Australia (SLSA) has recently reviewed the consultation regulation impact statement on reducing emissions from non-road spark ignition engines and equipment (dated May 2010). As a regular and large consumer of outboard engines and personal watercraft we would like to thank you for the opportunity to provide comments and feedback on the proposals outlined in the above mentioned document.

About SLSA...

SLSA is one of the largest volunteer organisations in Australia. Operating since 1907, our total membership of more than 150,000 is spread across 306 affiliated surf life saving clubs and more than 50 support operations (motorised units of personal watercraft, off shore boats and helicopters). SLSA has affiliated clubs and services in all Australian states and territories (excluding the ACT).

SLSA's mission is to provide a safe beach and aquatic environment throughout Australia; our core business is preventing deaths and injuries in the water. The majority of our services are provided by surf lifesavers who complete volunteer surf patrols during the surf swimming season. We also operate the country's largest lifeguard service.

Together our lifesavers and lifeguards complete over 13,000 rescues each year; approximately 30% of these rescues are achieved using personal watercraft (PWCs) or inflatable rescue boats (IRBs) propelled by small outboard engines.

SLSA relies on community support, our corporate partners and the Australian Government to fund the majority of our activities. We are a charity and the Surf Life Saving Foundation actively conducts fundraising around Australia on behalf of SLSA and our state and territory centres.

Our commitment to a healthy nation and the environment...

The health and safety of our members and the beach visiting public, and the protection of the Australian coastline is paramount to SLSA.

One of SLSA's strategic goals includes contributing to a healthy nation and our national ECOSURF program has been developed to prompt affirmative, local action in the face of the consequences of climate change, with the objective of promoting protection of coastal biodiversity and our beaches - *www.ecosurf.org.au*

Our operations...

Surf lifesavers and lifeguards are increasingly using motorised powercraft to complete their duties. PWCs and IRBs propelled by 25HP outboard engines are the workhorses of our services. Their speed over traditional methods of rescue, such as rescue boards and rescue tubes, allow lifesavers and lifeguards to reach people in difficulty at a much quicker rate.

Lifesavers and Lifeguards often operate in challenging conditions and the need for reliable equipment is crucial. Our operations are primarily in the 'surf zone' where IRBs with outboard engines and PWCs need to negotiate turbulent water and breaking waves.

All SLSA clubs operate IRBs with 25HP engines and all state/territory centres have a network of PWCs. The 2009 SLSA annual report noted that affiliated clubs and services owned the following gear and equipment:

- 787 inflatable rescue boats -IRBs (in size of 3.75m – 3.85m)
- 1002 25HP outboard engines
- 92 personal watercraft

SLSA also operates a small number of offshore rescue boats that are powered by larger outboard motors (200-250HP).

'High emitting' Vs 'Low emitting' outboard engine technology in SLSA operations...

Personal Watercraft (PWC):
The majority of SLSA PWCs are already of the four stroke low emitting technology. The four stroke technology performs better in our working environment than the two stroke technology. It is assumed that the remaining two stroke personal watercraft in service will eventually be replaced with four stroke technology through natural attrition. The transition from two stroke to four stroke has been adopted with relative ease by our operators.

Outboard Engines:
Of the 1002 25HP outboard motors in service, 98.5% are two stroke carburettor motors and 1.5% are two stroke direct injected motors.

In 2009, upon learning of the availability of 25HP 'low emitting outboard engine technology', SLSA began trials with the 25HP Evinrude ETEC two stroke direct injected motor and the Tohatsu 25HP four stoke motor.

We found the differences between the two technologies to be great and in many cases the available low emitting technology is not yet suited to all our operations. Below is a summary of the advantages and disadvantages of the technologies in surf lifesaving operations.

25HP Two Stroke Carburettor Engines In Surf Lifesaving Operations (Tohatsu, Yamaha, Mercury, Johnson)	
Advantages	**Disadvantages**
When set up correctly on our IRBs it performs well in surf conditions.	High emitting.
Light-weight – complies with OHS lifting and manual handling requirements.	Difficult to maintain following an IRB capzise where the motor often ingests some water.
Light-weight –allows for positive buoyancy on current IRB hulls.	Noisy.
Low cost (compared with the new technology motors).	No warranty for use in surf conditions.
Many brands available which makes pricing competitive and supply readily available.	

25HP Evinrude ETEC 2 Stroke Direct Injection Engine In Surf Lifesaving Operations	
Advantages	**Disadvantages**
Low emitting.	Can be challenging to maintain following an IRB capzise where the motor often ingests some water.
When set up correctly on the larger IRBs it works well in surf conditions.	High cost (compared to two stroke carburettor engines).
Quiet (compared to two stroke carburettor engines).	Heavy and lacks lifting handles– difficulty in complying with OHS and manual handling requirements.
Low fuel usage – reduced operating costs for clubs	Heavy –issues with maintaining positive buoyancy on some small IRB hulls.
Easy to start – no choke and instant idle (crucial when launching an IRB).	Long tiller arm on engine makes it difficult to obtain correct trim (balance) of the craft.
12month warranty for use in surf conditions.	To our knowledge Evinrude is the only 25HP two stroke direct injection brand available. This can make pricing uncompetitive and supply not often readily available.

25HP Tohatsu 4 Stroke Engines In Surf Lifesaving Operations (NB: Trials have not concluded and information is not fully comprehensive)	
Advantages	**Disadvantages**
Low emitting.	Difficult to maintain following an IRB capzise where the motor often ingests some water.
Quiet (compared to two stroke carburettor engines).	Difficulties in the correct disposal of oil when servicing the engine on the beach.
Low fuel usage – reduced operating costs for clubs.	Servicing is often required by a marine mechanic which incurs additional costs.
	High cost (compared to two stroke carburettor engines).
	Heavy – difficulty in complying with OHS and manual handling requirements.
	Heavy –issues with maintaining positive buoyancy on some small IRB hulls.

In summary, SLSA is eager to adopt low emitting outboard engines; however the transition is providing some challenges.

Implementation in surf life saving operations...

SLSA understands that under the current proposal our clubs and services would be able to retain currently used equipment past the proposed 2012 date; however low emitting technology will be the only available option for purchase from this date forward.

For SLSA to successfully comply with the proposed implementation timeline (in regards to outboard engines) we would need extensive funding and assistance from distributors to complete the following actions:

- Design and develop a new IRB hull to cater for the heavier low emitting technology motors.
- Identify funding to overcome financial hardship for replacing all IRB hulls and purchasing new high cost engines.
  NB: Each IRB hull costs approximately $12,000 each and each low emission motor approximately $5500. This equates to over $5.4 million dollars worth of equipment across the organisation. It is important to note that IRB hulls have a life span of approximately 8-10 years and outboard engines used in a surf environment 3-4 years. There would be a great deal of wastage if the older style IRBs no longer could be used in the near future as they would not be compatible with the new engine technology.
- Work with distributors to overcome issues with OHS and manual handling.
- Work with distributors to overcome issues with maintaining the motors following an IRB capsize.
- Work with distributors to overcome issues of supply and servicing – especially in remote areas.
- Train and educate our membership on the operating procedures for the new technology motors.

In conclusion, SLSA sees great community and environmental benefits in the Department's proposal and would welcome the adoption of emissions standards with commonwealth regulation; however we would require extensive concessions and/or assistance with funding and implementation to meet the proposed timeline of 2012.

We look forward to working closely with the Department and should you require any further details please do not hesitate to contact us.

Kind regards,

Peter Agnew

General Manager Operations
Surf Life Saving Australia