



**Submission to the  
Department of Health and Ageing  
Department of Finance and Deregulation**

**on the**

**2011 Review**

**of the**

**National Industrial Chemicals Notification and  
Assessment Scheme**

**14 December 2011**

**ABOUT AIP**

The Australian Institute of Petroleum (AIP) was established in 1976 as a non-profit making industry association. AIP's mission is to promote and assist in the development of a sustainable, internationally competitive petroleum products industry, operating efficiently, economically and safely, and in harmony with the environment and community standards.

AIP member companies play various roles in the fuel supply chain. They operate all of the petroleum refineries in Australia and handle a large proportion of the wholesale fuel market. However, AIP member companies directly operate and control only a relatively limited part of the retail market.

AIP is pleased to present this submission on behalf of the AIP's four core member companies:

BP Australia Pty Ltd  
Caltex Australia Limited  
Mobil Oil Australia Pty Ltd  
The Shell Company of Australia Limited

**Contact Details**

Should you have any questions in relation to this submission, or require additional information from AIP, the relevant contact details are outlined below.

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## Introduction

AIP member companies remain concerned that the *Industrial Chemicals (Notification and Assessment) Act 1989* and the subsequent NICNAS as applicable to additives in imported fuel has unintended trade, cost and supply reliability consequences. In particular, the present legislation has already had the consequence of limiting the choice of available fuel cargoes in short fuel market situations due to the presence of fuel additives for which the AICS registration status could not be confirmed.

While the industry has been fortunate to avoid market stock-out(s) in previous instances (sometimes at significant cost penalty) there remains the probability that the current legislation may, at some point in the future, result in a temporary inability to supply fuel to part of the Australian market for one or more member companies.

AIP proposes that alternative methods for the regulation of additives in imported fuels, specifically diesel CAS 68334-30-5 and Gasoline CAS 8006-61-9, be considered that allows for additives already blended into finished fuels imported from international sources to be recognised as a component of fuel and not regulated separately as is currently the case. This approach is consistent with the approach taken by New Zealand for imported diesel and retains adequate regulated controls for fuels.

We look forward to further consultation with the review team to develop workable solutions that will not weaken human health and environmental protection.

## Additives in the Australian Fuel Market

In recent years, Australian fuel imports have increased as market demand has increased and Australian refining capacity has decreased. This trend is expected to continue due to projected growth in demand, specifically in the mining sector.

Diesel and petrol imports to Australia in 2010-11 were 45% and 15% respectively of total Australian demand. During planned and unplanned shutdowns of Australian refineries, there was also a temporary but significant increase in importing requirements. Fuel sold in Australia must meet the *Fuel Quality Standards Act 2000* (Cth) (FQSA) requirements, which are amongst the most stringent in the Asia Pacific region. These tight specifications mean that there is a limit to the number of suppliers of Australian quality fuel in the region.

Additives are an intrinsic component of fuel and are critical to allow fuel to meet FQSA specifications. Fuel additives used by the industry are present in the fuel at low dose rates and their chemistries evaluated to ensure they do not materially increase the health, safety or environmental risks of the fuel or its merchantable quality. At present, importing fuel has the additional restriction that the components of all additives in the imported fuel which meet NICNAS criteria must be registered on the Australian Inventory of Chemical Substances (AICS) registry administered by NICNAS pursuant to the *Industrial Chemicals (Notification and Assessment) Act 1989* (Cth) (ICNAA), before the fuel can be imported into Australia.

AIP member companies' experience is that new additive formulations are regularly being introduced to the market and used by refineries in the Asia Pacific region. Unfortunately the additives used by fuel manufacturers at some international supply locations have limited technical information available regarding composition, and increasingly the additive

manufacturer has not sought nor contemplated registration of their formulation components on AICS. As the exporting country has little or no incentive to register these additives, it is unknown whether the components of these new additives are already registered on AICS. In other instances little information is available as the additives are viewed as proprietary, thus making it impossible for a finished fuel importer to independently determine the AICS registration status of an additive formulation. Examples of purposes for which fuel additives are employed are antioxidants, metal deactivators, corrosion inhibitors, conductivity improvers, cold flow improvers and lubricity improvers.

AIP member companies typically see that the additive manufacturers are seeking registration on the European Inventory of Existing Chemical Substances (EINECS) and/or the USA's Toxic Substances Control Act (TSCA) for their additive formulations. However, where the additive manufacturer does not have a presence or market for the neat additive in Australia (or has not intended to import that particular formulation into Australia) it is unlikely that they have taken on the additional workload to have the additive components registered in Australia. Even when the additive manufacturer does register a new component chemical in Australia, the exclusive importation rights afforded by registering the component creates a barrier to importing finished fuel containing additive using this chemical component unless member companies seek extension under the additive manufacturer's approval.

As a result, adherence to present NICNAS requirements is resulting in reduced levels of available supply and consequent exposure to increased costs caused by:

- A reduced pool of potential suppliers;
- Delay to importation from a supplier while waiting for extensions, exemptions and/or permits; and
- Rejected shipments when additive AICS listing cannot be validated in a timely manner, even where EINECS and/or TSCA listing has been confirmed.

The frequency of this problem, already a significant issue for fuel importers, will only increase as Australia's reliance on imports increases and is further exacerbated during periods of refinery shutdowns both planned and unplanned, and especially where natural disasters such as the Japanese Tsunami can further short the market of available AICS compliant fuel cargoes.

As new additives do present in the market and become prevalent in available cargoes, AIP member companies continue to work with additive manufacturers to persuade them that confirming AICS registration of their additive formulations is in their best interest, but this is a slow process.

These issues and solutions have been raised and actively discussed with NICNAS since 2008. NICNAS have been responsive to the noted concerns but acknowledge their operations are constrained by the legislative framework within which they operate.

### **NICNAS issues and implications**

To restate the fundamental issues:

- Fuel additives are an intrinsic part of fuel manufacturing and are present in petrol and diesel fuels at generally less than 0.5 mass% (for example cold flow improvers in diesel).

- The additives are designed to impart properties to the finished fuel so as to ensure they are both of merchantable quality (fit for purpose) as engine fuels and meet legislated fuel specifications.
- Fuel additive manufacturers continually seek to improve additive formulations and offer new formulations with the inclusion of new chemistries which may not be AICS registered or have not been confirmed to have been already registered on the AICS. However, the additive manufacturer may have already confirmed the formulation is compliant with other registration schemes such as EINECS (European Union) or TSCA (United States).
- Fuel manufacturers in other countries who tend to supply into the open market do not always use additives whose formulations are AICS registered.
- NICNAS requires all qualifying chemical components fuel additive formulations to be registered on the AICS. However the AICS non-confidential Registry only lists individual chemicals and not an additive manufacturer's brand names for blended additive formulation. This makes it difficult to determine compliance of a blended additive formulation without the willing assistance of the additive manufacturer since many additive components or entire formulations are regarded by the manufacturer as proprietary and as such they are not freely available to allow a third party to independently check/confirm that all components of the additive packages are AICS Registered.
- While NICNAS includes an exemption category '*Non cosmetic (No Unreasonable Risk)*' for limited importation the restriction of a maximum 100 kg per annum is too restrictive given the magnitude of fuel imported volumes. For example, a single diesel fuel cargo spot purchase can be as much as 50 kilotonne. If an additive of indeterminate AICS registration status is present in the fuel at a maximum of 500 mg/kg this would yield an imported amount of 25,000 kg of potentially unregistered additive.
- These NICNAS requirements limit the sources of fuel and most importantly remove third party traders as potential suppliers who may know that an additive is present in fuel but cannot confirm the additive formulation is AICS registered.
- Outside of Australia, introduction process for a new additive formulation by a refiner or third party fuel blender is not guaranteed to include assuring the additive has been AICS registered.

We do not believe that the impact of NICNAS requirements for fuel importers of this issue has been fully appreciated. Especially the need for timely action required of the member companies to purchase spot cargoes to fill unplanned shortfalls in supply, organise the shipping and the shipping time.

Australia imports over 45% of its diesel supplies from the Asian region, notably Japan, Singapore, South Korea, Taiwan and, increasingly, India. The majority of the supplies are sourced under term contracts where the additives can be identified and the fuel importer and/or their supplier has the time to confirm with the additive manufacturer that the additives components are listed on the AICS Register.

Where a load does not materialise for whatever reason or there is unanticipated demand, a fuel importer will have to enter the spot market. The fact that the fuel importer enters the spot market means that the supply is time critical where no ready source of alternative supply has been identified.

The key spot market is the “Platts Window” in Singapore where loads are freely traded to “Platts specifications” with some cargoes meeting the Australian fuel quality standards. However, there is generally no control over what additives may have been used in the fuel's manufacture. Fuel importers will insist upon full disclosure by the manufacturer of all additives present in the finished fuel, to confirm all additives are AICS registered. However, not all fuel additives used by the fuel manufacturer may be AICS registered; most typically the AICS registration status can be indeterminate from readily available information such as additive Material Safety Data Sheets (MSDS).

Where the AICS registration status of an additive is not known, the potential importer will commence dialogue, primarily through the trader offering the cargo, to have the origin manufacturer confirm AICS registration of the additive(s) with their additive manufacturer. In parallel the importer may also attempt direct contact with the additive manufacturer but this is not always possible nor viewed as priority correspondence by the additive manufacturer, especially where they have no commercial interest or presence in Australia.

The nature of the spot market is that decisions on cargo purchases are time critical and can rarely await the technical correspondence required to affirm AICS Registration Status. Thus the fuel importer is left to either secure the cargo and risk not being able to import the cargo if it comes to pass that the additives components are not registered, or pass up the cargo and commence new negotiations in a decreased time window to prevent a stock out situation of the Australian fuels market.

This decision will be taken in a time critical environment over a period of hours to a few days. Either of these options does not present an acceptable risk to the fuel importer or the Australian fuel consumer, especially when indications are that there is a limited risk to human health and the environment where evidenced by the additive's registration on the EU's EINECS or US EPA's TSCA.

Additionally, the provenance of a particular batch/cargo of fuel can be difficult to determine because it may have passed through the hands of a number of traders in Singapore who will not give commercially sensitive details of sales and purchases. Hence tracing back to original refining manufacture can be difficult. Even when provenance can be established back to the original manufacture, the lack of direct commercial relationship between the end purchaser and the original manufacturer can make asking questions about what is perceived to be commercially sensitive information difficult with a lack of cooperation from the original manufacturer.

Moreover, additive manufacturers are continually updating their products and seeking to gain advantage over their competitors. In some instances there may even be very little or no difference in the chemical constituents of the additive but a name change for marketing purposes or to identify a different solvent concentration may render the additive's AICS registration status unknown. Consequently it is unable to be imported into the Australian market unless resolved with the additive supplier. This represents a heavy regulatory burden

for the industry and an impediment to the reliable supply of fuel to the Australian public, for little or no improvement in human health or environmental outcome.

### **International Alternative Approaches**

AIP is aware that New Zealand recognises that diesel fuel with additive is a discrete product and does not require that the additives (or components of the additives) are registered. This process recognises that the additives in diesel are:

1. Required to meet legislated standards
2. Are present in amounts of less than 5000 mg/kg (0.5%)
3. Are an essential part of the formulation of low sulfur diesel fuel
4. Are subject to supplier confidentiality which makes assessing them difficult

Both New Zealand and Australia import diesel from the same supply sources in Asia and therefore face the same issues with additives. From the time New Zealand commenced importing diesel, there has been no health, safety or environmental issues which could be attributed to the presence of additives. It is recognised that there is very little if any additional risk to health, safety or the environment with these diesel or petrol additives and the risk management procedures in place for handling of bulk fuel are adequate to address the presence of additives in the fuel at typical dose rates.

### **Proposed Change**

The only comprehensive solution identified requires legislative change. One option that should be considered as part of the current review is the alignment of the Australian model to one similar to that operated in New Zealand. New Zealand operates a similar regulatory environment and has an operational solution to address this issue:

- New Zealand HSNO (Hazardous Substances and New Organisms) legislation (administered by ERMA – Environmental Risk Management Authority) covers importation and handling of hazardous chemicals.
- HSNO legislation: fuel additives are allowed and recognised in the fuel descriptions (i.e. separate registration/reporting of additives is not required).
- Additives falling within these classes are allowed in fuel at dose rates of up to 5000 mg/kg.

AIP proposes that alternative methods for the regulation of additives in imported fuels, specifically diesel CAS 68334-30-5 and Gasoline CAS 8006-61-9, be considered that allows for additives already blended into finished fuels imported from international sources to be recognised as a component of fuel and are not regulated separately as is currently the case.

AIP does not propose that this change be adopted for all chemicals but only for those that are present as fuel additives only, are used at rates substantially less than 1% and are already present in imported fuel as an integral component to help meet Australian legislative or customer operability requirements. The implementation of the above solution would provide benefits to Australia's supply and trade interests and help ensure continuity of fuel supply for the Australian public and mining sectors.

Alternatively, and specifically for application to importation of petroleum fuels, another option would be for NICNAS to consider inclusion of a new exemption class under the notification scheme, allowing importation of fuel cargoes containing additives for which the AICS registration is uncertain but where either EINECS or TSCA registration has been confirmed by the additive importer. Similar to other exemption classes an annual reporting of cumulative additive amount imported for the calendar year could be mandated. We recommend against imposing a maximum annual amount of an additive meeting the criteria as indicated above (i.e. AICS registration unknown and/or not listed but additive formulation EINECS or TSCA registration is assured). However, if a limit on allowable importation is deemed necessary, any limit must comprehend the sheer volume of bulk fuel imported and is set appropriately to encompass multiple ship cargo imports by a single importer (e.g. 200,000 kg of additive identified by additive formulation/brand name)

We strongly encourage the review team to commence further discussions with AIP and its member companies for further information and clarification.