15 June 2022

NSW Environment Protection Authority
59 Goulburn St
Sydney
NSW 2000

Via email: air.policy@environment.nsw.gov.au

To whom it may concern,

Re: Proposed Protection of the Environment Operations (Clean Air) Regulation 2022

The Australian Institute of Petroleum (AIP) welcomes the opportunity to provide the feedback to the NSW Environment Protection Authority (EPA) on the proposed *Protection of the Environment Operations (Clear Air) Regulation 2022* and corresponding Regulatory Impact Statement (RIS).

AIP presents this submission to the Department on behalf of AIP's core member companies:

- Ampol Limited
- BP Australia Pty Ltd
- Mobil Oil Australia Pty Ltd
- Viva Energy Australia Pty Ltd.

AIP member companies operate across all or some of the liquid fuels supply chain including crude sourcing and refinery operations, petroleum product imports, fuel storage, terminal and distribution networks, marketing and retail. Underpinning this supply chain is considerable industry investment in supply infrastructure, and a requirement for significant ongoing investment in maintaining existing capacity. Over the past 15 years, AIP member companies have invested over $10 billion to maintain the reliability and efficiency of fuel supply meeting Australian quality standards.

Moreover, AIP member companies deliver the majority of bulk fuel supply to the Australian market.

- In relation to conventional petroleum fuels, AIP member companies operate all the petroleum refineries in Australia and supply around 90 percent of the transport fuel market with bulk petroleum fuels.
- In relation to gaseous fuels, AIP member companies are the major suppliers of bulk LPG to the domestic market, representing around two thirds of the market.
- In relation to biofuels, AIP member companies are the largest suppliers of ethanol and biodiesel blend fuels to the Australian market.

General feedback

The proposed Regulation contains provisions that support the objectives and implementation of the Protection of the Environment Operations Act 1997 (POEO Act) as it concerns air quality. Those objectives include the reduction of risks to human health and the prevention of degradation of the environment.

AIP is supportive of measures to improve air quality where there are clear, demonstrable benefits that do not impose unreasonable costs on industry and the community.

AIP is disappointed that industry was not engaged through the development of the RIS as there are a number of shortcomings in the assumptions used to inform the RIS which may have led to different conclusions and in turn recommended approaches.

In particularly, AIP is concerned with:

- the assumed supply arrangements into NSW
- implications for supply to meet the proposed extended summer season
- cost implications of stricter emission limits and controls for volatile organic liquids.

Supply of Australian Refinery (Geelong and Lytton) Product to the NSW market

The proposal to extend the summer season by 30 days is underpinned by the assumption in the RIS that NSW could easily align with Victoria on the basis that fuel produced in Australian refineries and supplied into NSW is largely sourced from Victoria. Specifically, the RIS states:

> *Given the closure of refineries in NSW, the portion of petrol that is domestically produced fuel is predominantly supplied by Victorian refineries.*

AIP disputes the above position quoted in the RIS. Per the analysis below, AIP estimates that 75% of the fuel that is domestically produced and used in NSW's Greater Metropolitan Region is from Ampol's Lytton refinery, based in Queensland.

- As per Australian Petroleum Statistics, total NSW gasoline demand in 2021 was 29.48 mil bbl;
- With demand recovery from the COVID period, NSW gasoline demand in 2022 is estimated to increase to approx. 33.5 mil bbl;
- From the data below, total Vic and Qld movements of gasoline into NSW in 2021 were 3.518 mil bbl;
- This implies 12% of NSW demand was from domestic supply in 2021;
- YTD data suggest Lytton-to-Sydney movements have increased in 2022, while Geelong-to-Sydney remains stable;
- Based on YTD data, AIP estimates domestically manufactured supply will account for 15.5% of NSW demand in 2022, with approximately 75% of this coming from Lytton rather than Geelong.

Geelong (Vic) to NSW	Lytton (Qld) to NSW
• As per Kpler ship tracking, total movements of clean products from Vic to NSW in 2021 were 2.35 mil bbl. Assuming gasoline is 50% of this, that's **1.17 mil bbl** • Destination was Viva Energy's Gore Bay terminal and Vopak Sydney • YTD, 2022 volumes are on par to match 2021	• Gasoline movements in 2021 from Lytton to Sydney were **2.348 mil bbl** • Destination was Kurnell and Botany • YTD, 1H 2022 volumes (actual and nominated) have increased to 2.06 mil bbl

This is critical to note, as the proposed changes to petrol volatility limits do not align with the requirements in Queensland, as they would with Victoria under the incorrect assumption. A change in Regulation would therefore incur significant additional costs to the Lytton Refinery to produce fuel at the revised specified volatility limit for a further month each year.

The implications for both refineries, as well as on imported petrol, is discussed below.

Refinery Implications

The cost impact on those refineries will result from forgone revenue due to the extraction of butane from petrol in order to meet the summer volatility limit for an additional month, from its highest value end-product (petrol) and doing one, or both, of the following:

- Using the extracted butane to increase butane blend ratios in automotive liquified petroleum gas (LPG) up to the specification limit and/or using incremental refining (such as alkylation) to combine light olefins to form an alkylate (a blended paraffin, high-octane, low-vapor-pressure gasoline component). Supply of butane already currently outstrips demand for LPG, with demand in the LGP market continuing to decline.
- Selling the extracted butane on the petrochemical or export market. The cost implications are dependent on prevailing oil prices and exchange rates. Regardless, available information suggests it is likely that only a minor proportion of butane could be redirected to low-value use, such as petrochemicals, or to exports. The majority of butane will either go to alkylation (no loss in value) or to LPG production (small loss in value). Overall, the cost to domestic refineries of meeting the summer volatility limit is estimated to be approx. 0.45 cpl in 2022. With the increase in international oil prices projected over the assessment period, this impact is likely to increase to approx. 0.67 cpl by 2040.

Given Import Parity Pricing for fuel in Australia, refineries are unlikely to be able to recover the additional cost imposed by the proposed amendment to regulation.

Imported petrol and Importer implications

AIP disputes the statements in section 3.3 of the draft RIS relating to cost of Imported Petrol. The additional specification restrictions do reduce buying optionality for import cargoes, and importers will have to pay for higher cost blend components that replace butane to meet the lower RVP specification for the additional month. Further, there is an additional cost of sourcing related to vessel rotations (combined parcels that deliver into multiple states need to be sourced at the more restrictive specification) and a need to vary existing term agreements with suppliers. The total cost impact is estimated at around $1.2mill/year for importers.

Feedback on proposed change to Part 4: motor vehicles and motor vehicle fuels

The NSW EPA proposes a change to Part 4 of the Regulation:

> *Extend by one month the period during which lower summer petrol volatility limits apply in the NSW Greater Metropolitan Area (GMA) to better correspond with the peak ozone formation period in the GMR (that is, 1 November to 31 March) and to align with existing requirements in Victoria. The updated requirements are proposed to commence from November 2022.*

AIP acknowledges that petrol volatility requirements are an important component of the Regulation, with Australian states responsible for the management of petrol volatility to account for the different regional, climatic, and seasonal factors. NSW uses lower petrol volatility requirements as key measures to manage ozone formation in summer months and to reduce associated impact on community health and the environment.

The proposed change is in response to analysis of historic ambient air quality data illustrating the average ozone is increasing and exceedances above the 62 kPa limit are occurring prior to commencement of the existing summer petrol volatility season.

However, the RIS also makes the following statement:

> "*The premium on imported petrol that meets the summer volatility limit is estimated to be zero, since the volatility of gasoline imported from efficient, large-scale export refineries in Asia is typically limited to 60 kPa throughout the year* (Fueltrac 2018)".

While the above statement may have been correct for the data set used by Fueltrac at that time, it does not hold true for all years nor all manufacturers and should not be relied upon to assume all imports will always be less than or equal to 60 kPa. Although it is true that significant imported volume is sourced from Asia, AIP members continue to source petroleum products from a range of suppliers beyond the region. The proposed change would have the effect of limiting where companies can source product, result in financial repercussions and impinge on the capability of the industry to ensure security of fuel supply into the market.

From an import perspective, AIP members constantly work in arbitrage opportunities to move Mogas (winter grade fuel) from Europe, which has been a major supply source of winter grades into the Sydney market. With the extension of the summer period by a month, members would be unable to leverage these favourable economics for the respective loss of the winter period.

AIP notes that Australian fuel suppliers are also working with producers in the Middle East to expand supply options, including through supply of winter grades by blending more light components (including butane) , but the necessary material to meet the revised specification is not readily available.

Volatile Organic Liquids
AIP notes the recommendation to implement more stringent control equipment and/or emissions limits for large storage and loading plant and small loading plant. AIP understands that this change is intended to be via a staged implementation:

- for existing tanks for the first prescribed upgrade or maintenance after 1 July 2024 or by 1 July 2030
- for new large loading plant, small storage tanks and existing and new large tank vehicles by 1 July 2024.

According to the RIS, costs to industry have been estimated at $0.19m versus a benefit of $1.03m, arriving at a net benefit of $0.84m.

AIP would like to better understand how the costs to industry were determined, as preliminary industry analysis suggests that the costs would be significantly higher than estimated.

AIP notes that members regularly test tank integrity, including seals. Gas testing is required to be conducted with Lower Explosive Limits (LEL) set to zero. This is done as a critical process safety issue as vapours represent potential explosive risk. AIP therefore considers that the current level of emissions of volatile organic compounds from tanks is already reduced to low and acceptable levels.

While AIP accepts that the EPA has attempted to mediate costs of the proposed regulation by staging the requirements to invest in additional control measures over time, AIP notes that demand for petroleum product will continue to decline over this period due to ongoing vehicle efficiency improvements and move to alternative vehicle and fuel technologies. AIP members are significantly investing in these new technologies consistent with broader NSW Government policy objectives. Competition for limited capital is critical in this regard and the requirement to invest in tank modifications will consequently limit the capability of AIP members to invest in these new fuels and supporting infrastructure.

Point of Compliance
AIP is supportive of the Department's indicated intent of achieving greater alignment in summer low volatility compliance regulation between the New South Wales and Victoria regulation models, especially where the alignment is justified and the compliance process is able to be simplified without detriment to the intended environmental outcomes. AIP would welcome the opportunity to discuss the potential for alignment and simplification with the Department to share our experience and highlight opportunities for the Department's consideration.

Regulation timing and implementation

Depending on when the regulations are implemented in 2022, there are challenges both in terms of prompt cost and potentially, feasibility to transition to Summer specification by 1 November 2022. This is due to supply chain length, the very tight international market in 2022 and the supply agreements member companies already have in place, as the turnover of tanks is required to begin in mid-September 2022 to ensure on-spec tanks by 1 November 2022. Schedules and consequent orders for imported product cargoes are made 3-5 months in advance of planned delivery date, and the orders to assure November 15th 2022 compliance are already under way. To provide sufficient time for industry to properly plan for an earlier commencement date for the Summer period of November 1st, AIP recommends NSW EPA set the implementation of the new Summer period to commence in 2023 (i.e. after the current planned November 15th 2022 summer transition).

Conclusion

Thank you for the opportunity to provide comment on the proposed amendments to the POEO Regulations. AIP members support efforts to improve air quality but is concerned with a number of the assumptions contained in the RIS and considers that further cost/benefit analysis is necessary to ensure conclusions and in turn recommended approaches are fit-for-purpose and do not impose unreasonable costs on industry and the community.

AIP would welcome the opportunity to meet with the EPA to discuss the issues raised in this submission. Please do not hesitate to contact AIP's General Manager Peter Gniel on [redacted] or via email at [redacted]

Yours sincerely

Paul Barrett
CHIEF EXECUTIVE OFFICER