



Written Statement of
The American Petroleum Institute (API)
Before the
Subcommittee on Energy and Environment
Committee on Science, Space and Technology
United States House of Representatives
on
“Conflicts and Unintended Consequences of Motor Fuel Standards”

Nov. 2, 2011

Good afternoon, my name is Bob Greco and I am Group Director of Downstream and Industry Operations for the American Petroleum Institute (API). Thank you for the opportunity to testify today on overlapping and sometimes contradictory fuel requirements facing the refining industry. API is a national trade association representing over 480 member companies involved in all aspects of the oil and natural gas industry.

U.S. Refining is a Strategic Asset

America's refiners are a strategic asset for the United States, and maintaining a viable domestic refining industry is critical to the nation's economic security. The refining industry provides the fuels that keep America moving. The industry provides the nation's military with secure, available fuels wherever and whenever they are required. In addition, it provides affordable and clean fuels products to industries that rely on those fuels to manufacture hundreds of thousands of other consumer products that Americans depend on every single day.

Equally as important, U.S. refineries sustain hundreds of thousands of good-paying, highly skilled American jobs across the country in addition to the raw material building blocks which support a vast number of other American production industries. According to a study by Wood MacKenzie, the U.S. refining industry employs or supports the employment of over 460,000 jobs in the U.S.

According to the EIA and all credible studies, the United States (and the world) will continue to depend on refining petroleum-based products for decades to come in order to meet the increasing energy demand. Domestic refineries are competing directly with petroleum product imports. Because the refining industry operates on a global basis, the U.S. faces the choice of either manufacturing these products at home or importing them from other countries.

The U.S. refining industry already operates in an extremely complex regulatory environment. U.S. refiners have invested \$112 billion in environmental improvements, from 1990 to 2008, significantly reducing emissions while producing cleaner fuels and improving energy efficiency. Since 2000 alone, U.S. refiners have spent nearly twice as much on environmental improvements as the government and private sector¹ spent on non-hydrocarbon technologies. Regulations governing fuel composition, greenhouse gases, and environmental standards have an enormous financial impact on the refining industry, as do financial controls and taxation.

There are significant and potentially very costly additional regulations under development that may take effect over the next five years. These regulations include:

- More stringent "Tier 3" gasoline standards
- Refinery controls, including GHG limitations, through new NESHAP and NSPS requirements
- RFS implementation and the impending "blend wall"
- Refinery emissions controls to achieve more stringent air quality standards for ozone, PM, etc.
- New EPA requirements for boilers and incinerators (Boiler MACT)

Today I will focus specifically on the proposed Tier 3 gasoline standards being drafted by EPA.

¹ Excluding expenditures by the oil and natural gas industry.

Tier 3 Gasoline Proposal

EPA is developing a “Tier 3” rulemaking that would likely reduce sulfur levels in gasoline to an average of 10 ppm – a nearly 70 percent change from today’s already low levels - while also reducing gasoline volatility and, perhaps, other properties. EPA expects to issue a proposed rule by the end of 2011 and a final rule in 2012.

EPA should not issue a Tier 3 proposal without first justifying the impacts, costs, and benefits of reducing sulfur and vapor pressure in gasoline. Although EPA maintains these changes to gasoline are needed to improve air quality and fuel economy, the Agency has not produced the justification to back up its claims. At this point, EPA has not released the data the agency claims to have already in hand.

We have studied and believe that further sulfur and vapor pressure reductions would not produce benefits enough to justify the potentially onerous costs. These could include higher fuel manufacturing costs, refinery closures, lost jobs, increased emissions and increased product imports.

Under the Clean Air Act, EPA has already implemented increasingly stringent rules reducing the amount of sulfur allowed in gasoline and reducing vapor pressure. For example, the Tier 2 rules have reduced sulfur levels in gasoline by 90 percent, from an average of 300 parts per million before 2004 to an average of 30 parts per million today. EPA has told us that Tier 3 rules would likely require a further reduction to 10 parts per million. The Tier 3 changes EPA envisions could require refiners to install additional hydrotreating and fractionation units, significantly altering their refinery configurations and operations.

Researchers at Baker and O’Brien, Inc. have studied the costs and impacts of several Tier 3 scenarios. The study was shared with EPA, DOE, and EIA a couple months ago. The Baker and O’Brien work shows that the refining industry could face up-front capital costs ranging from between \$10 billion to \$17 billion, with recurring annual operating costs in the range of \$5 billion to \$13 billion.

As a result, they contend, gasoline manufacturing costs could rise between 12 cents per gallon and 25 cents per gallon.

In addition, between 7 percent and 14 percent of total gasoline production could be lost. Volume would suffer when sulfur is reduced and light end components are removed from gasoline.

Finally, because the refinery processes needed to reduce sulfur content and vapor pressure are also energy intensive, the Tier 3 rule could increase refinery carbon dioxide emissions by up to 2.3 percent. EPA would thus needlessly put upward pressure on refineries to increase their CO2 emissions while separately proposing requirements to reduce refinery CO2 emissions. Refineries would also have to ensure that increased emission of other pollutants resulting from reconfiguring their refineries are properly controlled and permit limits maintained.

Overall, Baker and O’Brien estimate that between four and seven U.S. refineries could close, as they would be unable to make or recover the required investments in plant equipment and operations necessary to comply

with the new requirements. This would be in addition to the 66 U.S. refineries that have closed in the last 20 years. The U.S. Department of Energy has identified the cost of compliance with various regulations as a part of the economic stress that caused the shutdowns.² The regulatory burden of Tier 3 requirements would add to this stress.

Summary

If America's refining industry is to remain viable, we need a regulatory structure that improves our environment while allowing the industry to remain competitive in the worldwide market. The domestic refining industry's outstanding history of regulatory compliance has made U.S. refineries among the cleanest and most efficient in the world. The industry remains committed to meeting regulatory requirements.

However, government must adopt a more reasonable approach to regulations. For example, it should allow time for existing regulations to reach their full effectiveness before adding new layers of regulation. The high and very real costs of complying with overreaching regulations that have uncertain benefits may weaken the ability of our domestic refining industry to compete with foreign refiners.

EPA's combination of suggested CAFE standards and Tier 3 fuel changes, coupled with potential refinery GHG controls, threatens the existence of US refinery jobs and products. Domestic refining capacity could be reduced, thereby increasing imports and costs.

Specifically regarding the proposed Tier 3 fuel requirements, EPA should complete the long overdue Anti-Backsliding study mandated by EISA (and now two years late), finalize and publish its scientific justification as soon as possible, and allow stakeholders adequate opportunity to review the data and provide input long before the Agency proceeds with a proposed Tier 3 fuel rulemaking. EPA should provide a credible analysis showing that lowering the vapor pressure or sulfur content of gasoline will achieve cost-effective, real emissions reductions, and air quality, health and welfare benefits.

² U.S. Department of Energy; Office of Policy and International Affairs. *Small Refinery Exemption Study An Investigation into Disproportionate Economic Hardship* March 2011 < <http://www.epa.gov/otaq/fuels/renewablefuels/compliancehelp/small-refinery-exempt-study.pdf>>