BRIGGS & STRATTON CORPORATION

U.S. Committee on Environment & Public Works

United States Senate

Written Testimony of Mr. Todd J. Teske, President, Chairman & CEO, Briggs & Stratton Corporation

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Chairman Barrasso, Senator Carper and distinguished Members of the Committee, thank you for inviting me to offer Briggs & Stratton's perspective on the Renewable Fuels Standard and specifically to comment on the Consumer Fuel and Retailer Choice Act (S. 517). My statement today, which is submitted strictly in my capacity as Chairman, President and CEO of Briggs & Stratton, will attempt to define the RFS challenges as they pertain to small engine manufacturers and offer suggestions on how to protect consumers from significant economic and environmental damage.

Briggs & Stratton Corporation, headquartered in Milwaukee, Wisconsin, is the world's largest producer of gasoline engines for outdoor power equipment. As a U.S. based manufacturer, our company is proud to be celebrating our 109th anniversary this year and continues to manufacture over 85% of our products here in America with 72% of our sales here in North America. We are a leading designer, manufacturer and marketer of power generation, lawn and garden, turf care and job site products through its Briggs & Stratton®, Simplicity®, Snapper®, Snapper Pro® Ferris®, PowerBoss®, Allmand™, Billy Goat®, Murray®, Branco® and Victa® brands. Briggs & Stratton products are designed, manufactured, marketed and serviced in over 100 countries on six continents by 5,500 employees. Approximately 5,100 of those employees work here in the United States.

Briggs & Stratton's long-standing commitment to the environment remains a key focus for our business. We continue to manufacture our products with recycled materials that are highly efficient and with reduced emissions. Since 1995, we have reduced our emissions by 75%, and after completing the phase-in of our new product offering, achieved an additional 35% reduction in those emissions in January, 2014. In 2007, we signed a pledge with the Department of Energy to reduce our energy consumption by 25% over 10 years. I am pleased to report that we met this goal. These are just a few of the many examples that demonstrate our commitment to the environment.

With that in mind, the goals underpinning the enactment of the RFS were laudable. However, not only has it become apparent that the goals are unlikely to ever be met, the RFS and E15 ethanol content have resulted in significant unintended consequences for consumers. Below are five factors that greatly concern me about the RFS and increased availability of E15.

1. Research has shown, and EPA has agreed, that use of E15 in small non-road engines can have harmful and costly consequences on small engines and outdoor power equipment.

Briggs & Stratton has conducted extensive testing on levels of ethanol above 10%. Increasing levels of ethanol in gasoline result in increased levels of alcohol. Alcohol has inherent properties that cause problems with our engines, and they become more acute with increasing alcohol content. Increasing the alcohol in fuel changes the air-fuel ratio (enleanment) in our carbureted engines. E15 fuel, by definition would have an alcohol content ranging from 0 to 15%. Our engines would have great difficulty in meeting both emissions and performance expectations with this type of alcohol range. Enleanment will also result in higher operating temperatures that will lower engine life due to issues such as valve sealing, piston scoring, and head gasket leakage, just to name a few. Ethanol is also hydroscopic (absorbs water). Increased levels of water will cause the engine to run poorly, and will also cause corrosion by means of acidic attack, galvanic activity, and chemical interaction. Ethanol will also cause other problems such as reduced fuel storage life, starting issues and reduced fuel economy.

Furthermore, Department of Energy (DOE) testing of E15 on a representative sample of small non-road engines, including Briggs & Stratton powered generators and power washers, found that small engines experienced a variety of difficulties with intermediate blends of ethanol. Most engines performed worse in several metrics when running on higher ethanol blends – engines often had higher operating temperatures, higher exhaust temperatures, and NOx emission rates. Higher operating temperatures lead to increased wear and tear and more frequent maintenance. Moreover, 7 out of the 11 engines behaved "poorly" or "erratically", according to DOE's report, with incidents of unstable speeds, stalling, and clutch engagement at idle. As a result of this testing, small engines were specifically excluded by EPA from the E-15 Waiver.

2. Research on warning label effectiveness suggests that an E15 warning label will do very little to mitigate misfueling.

In response to our concerns and the concerns of other interested parties, the EPA has issued a mandatory warning label for pumps that distribute E15. Given the body of research on the effectiveness of warning labels, we believe that this warning will not prevent consumers from misfueling their engines with the E15 blend, leaving the equipment owner liable for the damage to their products. Warning labels have been the subject of many research studies, with results often showing little change in consumer behavior. The Association for Consumer Research further reports that warning labels are considerably less likely to be successful when applied to products that consumers use frequently and feel comfortable with, e.g. gas pumps. If consumers visit their local gas station and do not realize that the ethanol blend has been increased, this research would indicate that they are unlikely to heed the warning label on the pump. There has been no testing done by EPA to validate the effectiveness of the warning label, which is not consistent with recognized safety standards such as ANSI.

When the U.S. transitioned from leaded gasoline to unleaded gasoline in the 70s and 80's, new cars running on unleaded gasoline were designed with different fuel tanks to be incompatible with older leaded gasoline in an effort to prevent misfueling. There is no such "transition" plan or tangible differentiation in place for E15 and it is solely up to the consumer to know what fuel is appropriate for their automobile, lawn mower, generator, pressure washer, etc.

3. Behavioral studies of customers at the gas pump conclude that consumers overwhelmingly favor the lowest priced option, regardless of the consequences.

Historical evidence suggests that when faced with a range of prices at the pump, consumers are far more likely to choose the lowest-priced option despite potential damage to their engines. Through our industry association, the Outdoor Power Equipment Institute, we have conducted three Harris Poll Surveys. The latest poll results, conducted in March 2017, show that over three in five Americans assume that any gas sold at fueling stations is safe for all of their cars as well as other, non-road engine products, like boats and mowers (63% up 2017, up from 60 percent in 2016 and 57% in 2015). This year's poll also shows roughly two thirds of Americans believe higher ethanol blends of gas are safe to use in any engine (31 percent). As previously mentioned, when the United States transitioned from leaded gasoline to unleaded gasoline in the 70's and 80's, new cars running on unleaded gasoline were designed with different fuel tanks, to be incompatible with older leaded gasoline pumps. Additionally, car buyers were educated at the point of purchase about the new fuel. Even with those prevention and education measures, the EPA reported that in 1983 – ten years after the

introduction of unleaded gasoline – misfueling rates remained as high as 15.5%. The New York Times reported that "customers would go out of their way to pump leaded gas if it was just a few cents cheaper. What they gain at the pump they lose at the repair shop in higher maintenance costs." If high rates of misfueling still occurred when physical obstacles were in place, we believe that a simple warning label next to the pump will not yield better results. Similarly, the National Bureau of Economic Research reports very strong price elasticity of demand in its own study on the use of premium vs. regular gasoline during times of high gasoline prices. When gasoline prices increased, consumers switched to less expensive, regular gasoline even though premium gasoline was recommended for their vehicles. NBER concludes that households are nearly 20 times more sensitive to the income effect for gasoline than to equivalent effects from other sources.

4. Misfueling due to lack of education to consumers regarding the proper use of E15 will be significant.

EPA has instructed stakeholders to "develop a broad public education and outreach campaign that provides both consumers and retailers with the information they need to avoid misfueling." Briggs & Stratton is already taking steps to educate its customers about proper fueling for its products through its "Look Before You Pump" Campaign and has introduced additives and E-0 gasoline products to assist consumers with selecting the proper fuel. Briggs & Stratton does not feel we, nor the outdoor power equipment industry, should be held solely responsible for educating tens of millions of Americans on the dangers of misfueling, especially when many already own products which are incompatible with E15. In a study previously conducted, AAA found that 95% of Americans had not heard of the new E15 waiver. In a separate study by the National Association of Convenience Stores, it was clear that consumers were confused by E15; many believed that E15 had higher fuel economy than E10. And the study also found that of participants who said they would consider fueling their cars with E15, 60% of them owned cars for which E15 is incompatible and prohibited. Despite our best efforts at education and prevention, we believe the risk of misfueling will be substantial, and damage to our products will be irreversible. We risk losing decades of trust and our brand reputation as a manufacturer of quality, reliable products while owners will not get the value they expected when they purchased the product.

5. The use of Biofuels or "drop-in fuels" has been tested and could prevent misfueling.

Small engines and outdoor power equipment are not designed, warranted, or EPA-approved to operate on gasoline containing more than 10% ethanol. Briggs & Stratton fully supports the development and use of

biofuels, from any feedstock, which are "drop-in fuels." Drop in fuels, by definition, meet existing gasoline specifications and are ready to "drop-in" to infrastructure, minimizing compatibility issues. These fuels are capable of satisfying the additional growth in biofuel use, while also providing a safe and high performing general fuel for both legacy and newly manufactured small engines and outdoor power equipment. We have conducted extensive testing with a drop-in isobutanol blended gasoline which demonstrated evidence that such fuels can provide the performance and operational criteria necessary, without demonstrating any negative effects. Drop-in fuels had not yet materialized when the RFS was developed in previous market conditions and the EPA was compelled to grant the partial waiver to meet the statutory targets using ethanol. E15 will not provide compliance with current RFS targets and has required EPA to continue to revise fuel standards creating uncertainty in the marketplace and for manufacturers and increasing misfueling risks to consumers. Misfueling will result in economic harm to all parties and void product warranties. Ever changing targets will result in less efficient investment of manufacturing resources and more costly products.

Briggs & Stratton Corporation's reaction to The Consumer Fuel and Retailer Choice Act (S. 517).

The Consumer Fuel and Retailer Choice Act (S. 517) would extend the Reid vapor pressure (RVP) waiver to ethanol blends above 10 percent. It would allow retailers across the country to sell E15 year-round.

Under this legislation, it is highly likely that consumers would misfuel small engines with even more frequency. This misfueling would lead to significant economic harm for consumers as these small engines fail since there is no liability protection for consumers. As mentioned earlier, DOE testing has concluded that higher blends of ethanol (above E-10) result in higher NOx emission rates, which would cause environmental damage. Reliance on warning labels would do little to prevent this misfueling. While the private sector will continue to do its part to educate consumers on the risks of E15, we strongly believe these efforts will not be enough. Despite our best efforts at education and prevention, we believe the risk of misfueling will be substantial, and damage to our products will be irreversible. This puts us at risk to lose decades of trust from consumers and negatively damage our brand reputation. For these reasons, Briggs & Stratton opposes S. 517 as currently written.

We encourage the Committee to work together in a bipartisan way to draft new legislation that protects consumers. We recommend that any reform legislation rescind the partial waiver for E15, and establish gasoline blended with up to 10% ethanol as the general purpose domestic fuel. The legislation should also

require that all considerations to increase domestic biofuel levels in the future be subject to the formal EPA rulemaking process whereby the market's ability to safely distribute, retail and consume such fuel is provided. We would also encourage the Committee to pursue policies that encourage research into the next generation of renewable fuels that are proven safe on all types of engines.

Chairman Barrasso and Senator Carper, thank you for holding a hearing on this important issue, and for allowing me the opportunity to testify. I would be happy to answer any questions you and your colleagues have.