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Around 620 B.C., Aesop is attributed with writing many fables.

One of his fables is called “The Bundle of Sticks”. It tells the story of a father who gave a bundle of sticks to each of his sons and asks them to break it, but they were all unsuccessful. Then, he has them untie them and each is able to break an individual stick easily. Father concludes, “Union gives strength.”

There are hundreds of examples of NORA members working as one to help protect and grow our industry over the last 35 years. The latest example of this is truly a first for NORA. (See “Vacuum Tower Asphalt Extender: ASTM D8125-18 Published” on page 9.)

Starting in 2014, a threat became apparent as many state DOTs started to ban the use of Vacuum Tower Asphalt Extender (VTAE) in asphalt pavement because of concerns of negative impacts on the use of the product. VTAE is also known as re-refined engine oil bottoms, asphalt flux, asphalt extender and vacuum tower bottoms.

Working together, NORA produced and approved a specification for VTAE in April of 2015. Then, individual members worked on getting this approved as an ASTM standard. In just two short years, that goal has been accomplished.

What’s next? At the recent NORA meeting in Baltimore, it was agreed that NORA and its members will once again work together to inform state DOTs, user groups and others that have influence on the market for VTAE about the new ASTM Standard.

NORA has and will work to defend the rights of our members to responsibly recycle used oil and related materials. Working together, we are stronger and more effective in achieving this goal.
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INDUSTRY CALENDAR

ILMA 2018 Annual Meeting  
Palm Desert, California  
October 6-9, 2018

NORA 2018 Conference & Trade Show  
Rancho Mirage, California  
November 7-10, 2018

NAPA 2019 Annual Meeting  
Marco Island, Florida  
January 20-23, 2019

NORA 2019 EH&S Forum & Winter Meeting  
New Orleans, Louisiana  
March 6-9, 2019

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For over a year NORA has been patiently awaiting the nominations by the Trump Administration and confirmations by the Senate of key EPA Assistant Administrators (AA) that would possibly be more supportive of the recycling industry than the previous administration. This process has moved at a snail’s pace with regards to putting in place the EPA’s AA of the Office of Land and Emergency Management (better known in the past as “Office of Solid Waste”). This office regulates much of what NORA members do on a daily basis, and is key to achieving approval of the NORA proposed “Used Oil Management Practices for PCB Detection” which would give much needed relief to NORA members when PCB contamination is found.

Undoubtedly the Senate confirmation process for AAs has been seriously slowed by the constant bickering between the political parties, the President, and the outgoing EPA Administrator for Scott Pruitt (who resigned on July 5, 2018) and the news media. It comes as no surprise that the Washington D.C. “swamp” is resisting being “drained”.

NORA was very encouraged that the Trump administration nominated Peter Wright to be the EPA AA of the Solid Waste Office on March 6, 2018. We are hopeful that he will eventually be confirmed. The announcement has been welcomed by industry officials, who say he is practical-minded and has long-time environmental experience.

Peter Wright, long time Managing Counsel, The Dow Chemical Company and now DowDupont, counsels the company’s senior management and manages the legal issues and outside counsel with respect to Dow’s largest and most significant environmental matter, the mid-Michigan dioxin matter. He also has the global lead responsibility for counseling Dow on its merger and acquisitions and significant real property transactions. In addition he provides counsel on hazardous waste matters, sustainability, environmental disclosures, shareholder resolutions, public reporting obligations and product stewardship matters.

Mr. Wright has suggested a question to consider for the improved efficiency of EPA cleanup programs as a whole: does the country really need three federal cleanup programs (i.e. the TSCA program for PCBs, RCRA, and CERCLA)? In many ways these are challenges that have persisted for these programs for many years, Mr. Wright noted. One such example is the overly complicated definition of solid waste, which has likely resulted in the excessive use of resources on management of relatively non-hazardous materials as hazardous waste. Many of the land disposal treatment standards are similarly overly complicated and unnecessarily burdensome. There is more discussion below on Wright.

Scott Pruitt has just now resigned as EPA administrator following a long series of ethics and spending investigations, leaving Deputy Administrator Andrew Wheeler to step into the role of acting administrator. President Donald Trump announced July 5. Wheeler, a former GOP staffer for Sen. James Inhofe (R-OK) and coal industry lobbyist, was previously confirmed as deputy EPA chief by the Senate as of April 12, and has the authority to take over as acting administrator.

Announcing the move by tweet, Trump posted that Wheeler will become acting administrator effective July 9 -- “I have accepted the resignation of Scott Pruitt as the Administrator of the Environmental Protection Agency. Within the Agency Scott has done an outstanding job, and I will always be thankful to him for this. The Senate confirmed Deputy at EPA, Andrew Wheeler, will on Monday assume duties as the acting Administrator of the EPA. I have no doubt that Andy will continue on with our great and lasting EPA agenda. We have made tremendous progress and the future of the EPA is very bright!” Trump wrote.

In general, acting officials can serve no more than 210 days from the date of a vacancy under the Federal Vacancies Reform Act. Pruitt’s resignation, effective July 6, would make the end...
of that period Feb. 1, 2019. He could be confirmed before then as the Administrator.

It has been reported in the press that Senate Republicans are in no hurry to tackle a bruising confirmation fight to permanently replace Scott Pruitt as head of the Environmental Protection Agency. Nearly a dozen GOP senators have said that they are comfortable with acting Administrator Andrew Wheeler's ability to run the agency indefinitely. The Senate's schedule ahead of November's midterm elections is expected to be dominated by annual spending bills and the fight to confirm President Donald Trump's new Supreme Court nominee.

Immediately after Wheeler became the acting administrator, EPA hired Peter Wright as a “special counsel” to Wheeler. He will be an advisor to the Office of Solid Waste until he is possibly confirmed as the assistant administrator. As expected this has made some of the Democrat Senators and environmental NGO groups unhappy.

Both Wheeler and Wright are expected to be much better than the past administration for NORA members to work with on environmental issues. On another positive note I remind you that Susan Bodine was confirmed last December to be the AA of the Office of Enforcement and Compliance Assurance. She is very knowledgeable of the used oil recycling industry and has been an ally.

If you are interested in more details, you can contact me at Jack.Waggener@aecom.com or 615-224-2133.

Andrew Wheeler
Acting EPA Administrator

Heritage-Crystal Clean is one of the fastest growing used oil and environmental service companies in the USA. We are a long-standing member of NORA, and we actively support the following initiatives:

- Improving the regulatory framework for managing PCB’s in used oil through the NORA TSCA workgroup
- Representation of the used oil re-refining industry through the NORA Re-refining Council

We continue to invest in our business and expand our geographic service area and scope of services, and we are pleased to work with other NORA members to improve the standards and visibility of our industry.

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NORA Member Valicor Environmental Services Opens Memphis Facility

NORA Member Valicor Environmental Services ("Valicor"), one of North America's largest providers of non-hazardous wastewater treatment services, has expanded its network of wastewater processing facilities through the opening of its Memphis location.

The Memphis facility, which opened recently, expands Valicor’s network into Tennessee's largest manufacturing region, both expanding geographic reach for existing customers and enabling the development of relationships with new customers. The facility is equipped to handle oily water, leachate, soap, product destruction, and oil collection.

“We are excited about the value we can provide both existing and new customers from the Memphis location,” commented Bill Hinton, Valicor’s Chief Commercial Officer. “Memphis is ideally located within close proximity of a number of key manufacturing and industrial hubs and our facility is well-equipped to provide a number of solutions to our customers.”

Memphis is the most recent network addition for Valicor, which enhanced its Midwest presence through the acquisition of Ultra Environmental Services in June 2017 and expanded into Texas through the acquisition of Midstate Environmental Services in November 2017.

NORA Member Intergulf Corporation Acquires Lonestar Ecology, LLC

NORA Member Intergulf Corporation, a portfolio company of Kinderhook Industries, LLC recently announced the acquisition of Lonestar Ecology, LLC. Lonestar represents the first add-on acquisition for Intergulf and Kinderhook’s 34th acquisition in the environmental services sector.

Headquartered in LaPorte, Texas, Intergulf provides solutions to its industry partners by specializing in procuring, blending, treating, and processing petroleum, petrochemical products, and waste streams. Lonestar’s headquarters is located in Pasadena, Texas, where it operates a Centralized Wastewater Treatment plant (“CWT”) and a RCRA Part B Treatment, Storage and Disposal Facility (“TSDF”).

“The acquisition of Lonestar complements our strategy of providing our industry partners with a comprehensive suite of environmental services offerings. We can now offer expanded hazardous and non-hazardous environmental services to the Gulf Coast market,” said Brandon Velek, Chief Executive Officer of Intergulf.

“We are excited to partner with Kinderhook and Intergulf,” said Will Wilson, President of Lonestar. “We are focused on accelerating growth as a combined company and providing best-in-class service to our customers.”

NORA Member MemPore Environmental Technologies Inc., Receives United States Patent on Oil Recycling

NORA Member MemPore Environmental Technologies Inc. recently announced that it has been granted U.S. Patent No. 9,993,775 for its “Used Oil Recycling Filtration Assembly”. This assembly is the key component of MemPore’s technology and systems for recycling used oil into clean base oil using nano-filtration membranes.

Membranes have been used for decades as an economical means for water desalination but have never been successfully applied to used oil. The MemPore technology, developed initially at the National Research Council of Canada, solves this problem and produces a base oil that meets all API specifications in terms of both chemical composition and physical characteristics. MemPore’s first commercial scale System was commissioned in June 2017. The MemPore System provides a means for companies which either generate or collect used oil to convert this resource into valuable base oil, rather than selling it to others for burning or re-refining.
ASTM recently published D8125-18 Standard Specification for Re-Refined Engine Oil Bottoms (REOB)/Vacuum Tower Asphalt Extender (VTAE) and is available for purchase at www.astm.org. REOB/VTAE is derived from used oil distillation. According to the producers of REOB/VTAE, the product provides the critical element of flexibility to “hard asphalt” and enhances the performance of ordinary asphalt with adhesive strength, joint sealing and other qualities such as water proofing. REOB/VTAE, which has been referred in the past to asphalt flux, asphalt extender, vacuum tower bottoms and other names, has been successfully used as an ingredient in asphalt pavement and roofing since at least 1983.

Starting in 2014, certain states issued bans related to the use of REOB/VTAE in asphalt pavement because of concerns of negative impacts from the use of the product. NORA took a leadership role in bringing various sectors (NORA members as well as non-members) from the industry together to develop NORA VTAE specifications.

NORA members worked to secure adoption of the NORA specifications by ASTM. In large part, the NORA specification are now part of ASTM D8125-18.

According to Scott Parker, NORA’s Executive Director, the specifications were issued in order to ensure that “basic standards of quality are routinely achieved.” Parker emphasized that REOB/VTAE “have been successfully used for more than three decades for both asphalt paving and asphalt roofing materials.”

At the recent NORA meeting in Baltimore, it was agreed for NORA to work with its members to promote ASTM D8125-18 to the state DOTs and other groups with the goal overturning the bans on REOB/VTAE.
NORA Remembers Donald Brinckman
1931-2018

Donald Brinckman passed away on June 11, 2018. He had served as the President and CEO of Safety-Kleen as well as a Director of Heritage Crystal Clean Inc.

In 1960 he joined CR Industries of Elgin, Illinois and by 1966 was vice president and general manager of the replacement division. While searching for additional products to supplement the line of automotive parts sold by the replacement division, Donald found a small parts washer company located in Milwaukee that had a unique marketing strategy, but no resources to implement it. He recommended that CR Industries purchase Safety-Kleen, and the acquisition was completed in 1968.

He became Safety-Kleen’s President and CEO. Under Donald’s leadership, Safety-Kleen became a leading provider of environmental services to commercial, industrial and automotive customers worldwide, as well as the largest re-refiner of used oil and provider of parts cleaning services in North America. Safety-Kleen went on to become the first American company to post 17 straight years of earnings growth of more than 20 percent. Safety-Kleen was named to the Fortune 500 list in 1991.

Following his retirement from Safety-Kleen, he served as a Director of Heritage Crystal Clean Inc. from 2002 to 2012. He is survived by his wife of 64 years, Beverly, a sister, five children, 11 grandchildren and a great grandchild.
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The superb handling of sports cars appealed to Dan Rowzie so much so that in his younger days he began attending sports car events enjoying the sound of mostly British sports cars. He was happy in that pursuit until one day he witnessed another competitor in an air cooled Porsche. The sound of that German engine captivated him.

Since buying a used 1962 Porsche Cabriolet in 1965 he reports that about 50 Porsches have come and gone in his life.

His stable of Porsches currently consists of a single 911 model which he purchased in October of 2017. He located this most recent 911 in the Shenandoah Valley of Virginia, liked what he saw and drove it to his Charles Town, West Virginia home. The car had been repainted and the odometer had counted 46,600 miles.

Instrumentation on the dashboard showed a top speed of 150 miles per hour. Adjacent to the speedometer is the tachometer with a red line of 6,500 revolutions per minute.

On the air cooled engine in the rear of the car are a pair of Weber carburetors atop the two-liter engine that develops 130 horsepower. The capacity of the fuel tank is 16.4 gallons.

Rowzie states that his car performs better when burning premium gasoline. “It’s like a Volkswagen on steroids,” he observes. “It handles nicely.”

The unibody Porsche is equipped with a hot air heater much like the heater on Volkswagens.

Another feature the Porsche shares with Volkswagen are the jack ports on each side. When in use the jack can hoist both wheels on either side of the car.

Rowzie says his car’s performance is enhanced by front end struts and telescopic shocks on the rear. A four-speed floor mounted manual transmission is standard with a five-speed version available as an option. Power is transferred to the 5.50x15-inch tires at the rear. The car rides on an 87-inch wheelbase. The cockpit is cozy without being claustrophobic. Both doors have armrests as well as storage pockets.

Additional storage space is located behind the front seats on a parcel shelf and a surprisingly spacious area in the front of the car.

Porsche designers were conscientious about aerodynamics when the 13-foot, 8-inch-long model was developed. Even the backup lights are incorporated into the curves of the fenders.

Rowzie admits his 911 is a basic, good car that does everything asked of it very well from the simplest task to details advising checking the oil level with the engine running.

After experiencing almost a half century of Porsches Rowzie is comfortable in his role as caretaker of many Porsches. The cars have soul he says.
Since its formation in 1983, Intergulf Corp. has been a known leader in liquids management for plants and refineries on the greater Gulf Coast and throughout the nation. With multiple locations in Pasadena and La Porte, Texas, Intergulf has built a solid reputation within the industry by specializing in wastewater processing and recycling oils and fuels. Intergulf has the experience, financial strength and conservative management principles needed to meet the requirements of its customers.
This is the first of a two-part series on IMO 2020. This Part 1 explains what IMO 2020 is, how it came about, its magnitude and implications for the shipping and refining industries, and the broader effects on world petroleum markets, including the used oil industry. Part 2 will examine the effects of IMO 2020 on specific segments of the used oil industry, including gatherers (collecting used oil), distillers (making VGO or MGO), and re-refiners (making base oil), and how participants in these segments can create or preserve value in light of upcoming market changes.
In the months leading up to January 2020, a profound change will affect world markets for marine fuels as demand for High Sulfur Fuel Oils (aka HSFO, such as No. 6 Oil or Bunker C) declines and demand for Very Low Sulfur Fuel Oils (VLSFO) rises in response to a regulatory change reducing the maximum sulfur content in marine fuels worldwide from 3.5% to 0.5% on 1/1/2020. The magnitude of this sea change appears massive, affecting about 4 million barrels per day (bpd) or about 4% of the total crude oil production worldwide. As of the date of this article (July 2018), virtually every type of fuel and base oil market worldwide will be affected in some way. The immense scale of the change raises questions, such as how did this change come about? Will it happen in 2020? How will shippers and refiners adjust? Will the effects be as large as current forecasts indicate? And most of all, how will this change affect me?

The regulation limiting sulfur in marine fuels worldwide to 0.5% on 1/1/2020 (commonly referred to as “IMO 2020”) was confirmed at the 70th session of the International Maritime Organization’s (IMO) Marine Environmental Protection Committee (MEPC) in October 2016. The regulatory process started in 1997 (IMO Marpol Annex VI) which created a worldwide global sulfur cap of 4.5%, later lowered to 3.5% in 2012. It also established Emission Control Areas (ECAs) which in 2006 limited sulfur to 1.0% and in 2015 further limited sulfur content to 0.1% within proscribed distances of certain coastlines (US, Europe, China etc). Now, both IMO procedures and subsequent public statements indicate there will be no walking back IMO 2020 despite strong resistance from industry organizations claiming 1/1/2020 is just too soon. Instead efforts are moving in the opposite direction towards an outright ban in 2020 on carriage of 3.5% HSFO on any vessel not equipped with an Exhaust Gas Cleaning System (aka EGCS or “scrubber”). Efforts are even underway to reduce CO2 emissions from ships to zero by 2050! So clearly IMO 2020 is here to stay and it will happen on 1/1/2020. Affected participants are now left struggling with what to actually do about it?

Shippers have 4 options which are, 1. Exhaust Gas Cleaning Systems (aka scrubbers), 2. Liquified Natural Gas (LNG), 3. Non-compliance (aka cheating) and 4. Compliant Fuels (such as MGO or other VLSFO). Scrubbers show quick paybacks based on current and even wider forecasted price differences between HSFO and VLSFO but they are costly to install and operate, and their weight reduces available cargo capacity. Furthermore, unless enough shippers switch to scrubbers, HSFO may be difficult to source as, in response to low demand, many terminals may no longer store HSFO or only offer HSFO at higher prices. Or alternatively, if enough shippers add scrubbers the price difference between HSFO and VLSFO will decline, thus lengthening scrubber investment paybacks. LNG is impractical to implement on most ships, does not currently offer a material cost advantage, and is difficult or impossible to source in most ports. Cheating is forecasted to range from 5% to 40% as it tilts economics dramatically in favor of the cheater. However, most shippers will comply (including the more reputable shipping companies) and there is great focus on policing cheating to ensure a level playing field amongst all competitors. This leaves switching to Compliant Fuels (eg VLSFO) as the most likely option of choice for addressing IMO 2020.

At this time, the vast majority of the 0.5% Compliant Fuel is expected to be distillates (or distillate blends), with the majority of the VLSFO being MGO, but this will be very costly. Even today (long before MGO demand increases and HSFO demand drops) MGO carries an average price premium of about 50% over HSFO fuels. Industry estimates for just the increased cost to shippers making the switch to compliant fuels is a
staggering $30 billion to $60 billion per year. Ship owners are thus struggling with their options, most notably to either pay the piper and buy VLSFO, or install scrubbers and buy HSFO. Surprisingly few so far have decided to add scrubbers. Thus the forecast is for a huge demand increase for VLSFO, and most notably MGO.

Refiners of crude oil are well aware of IMO 2020, but with very few exceptions have not taken action for a number of reasons, the two key ones being cost and market uncertainty. HSFO is the current “dumping ground” for the bottom of the barrel vacuum residuum left over in processing crude oil. This vacuum residuum is often blended with other streams, such as used oil and other cutter stocks, for sale as HSFO. Many complex refineries here in the US have instead tended towards carbon rejection technologies for processing vacuum residuum (eg cokers, visbreakers, deasphalters). But adding these units is very expensive and cost justifiable only in large volumes, and refiners today do not seem oriented to making the huge capital investment for marine fuels. Further complicating the economic decision is uncertainty as to whether the shipping industry will broadly adopt scrubbers or not. If it does then the wide forecasted price spreads between VLSFO and HSFO will drop, reducing returns on the heavy capital investment. Furthermore, even if carbon rejection units are installed more broadly, the products they would make would best be sold into gasoline, jet fuel, and diesel markets, which are deeper and generally more attractively priced than marine fuels. So, but for a few exceptions such as Exxon-Mobil, the refining industry is largely taking a wait-and-see position, waiting to assess the economic landscape after 2020 to see the longer-term market effects of IMO 2020 before making large scale capital investments.

So with both shippers and refiners in the aggregate each taking mostly wait-and-see positions, it is becoming increasingly certain that VLSFO, and MGO in particular, will end up filling the gap. The first chart in the column to the right shows the short and longer term affects of the shift in coming years as forecasted by S&P Global Platts Analytics. In the near term HSFO volume is forecasted to drop from about 3.5 million bpd to about 500,000 bpd, a volume decline of over 85%, with a net expected shift of about 1.4 million bpd from HSFO to VLSFO. Conversely the increase in distillate demand is forecasted to be over 1.5 million barrels per day (an almost 2x increase over current distillate demand volume), with MGO mostly being used as blend stock to make VLSFO that meets the new 0.5% sulfur specification. Over time, as more scrubbers are installed, HSFO demand is expected to increase, but even at its maximum in 2030 the forecast volume for HSFO is less than ½ the current volume. HSFO is thus forecasted to be a remarkably poor market in the coming years. Interestingly, the total volume of marine fuels is forecasted to increase from about 5.5 million bpd to over 7 million bpd in 5 years. This is a compound annual growth rate of about 5% per year, which indicates strong market growth for marine fuels.

### IMO 2020 Forecasted Compositional Shift in Marine Fuels

(millions of barrels per day)

<table>
<thead>
<tr>
<th>Year</th>
<th>VLSFO</th>
<th>MGO</th>
<th>HSFO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>3.5M</td>
<td>1.4M</td>
<td>2M</td>
</tr>
<tr>
<td>2025</td>
<td>4.5M</td>
<td>2.5M</td>
<td>1M</td>
</tr>
<tr>
<td>2030</td>
<td>5.5M</td>
<td>3.5M</td>
<td>0.5M</td>
</tr>
</tbody>
</table>

Source: S&P Global Platts Analytics

Along with the forecasted drop in HSFO volume, futures pricing for HSFO to January 2020 indicates a major price decline of about 33% in HSFO’s price versus current (July 2018) prices.

### US Gulf Coast HSFO (Platts) Futures Quotes

(dollars per barrel)

Source: CME Group, Gulf Coast HSFO (Platts) Futures Prices, July 8, 2018
But is the future decline in HSFO’s price and volume certain? It is possible that scrubber installations could increase, generating more demand for HSFO than expected. Or maybe one or more less expensive technologies (than carbon rejection offers) emerges which cost effectively de-sulfurizes HSFO well below current levels. Perhaps as HSFO becomes much cheaper other markets emerge or grow, such as power or asphalt, to absorb the excess HSFO. While hope springs eternal, as of July 2018 believing future HSFO demand will be anywhere near its current levels is a risky bet. It appears very unlikely today that there will be enough demand in 2020 to prevent a major decline in both the volume and pricing of HSFO.

In times of change there is both risk and opportunity. For used oil gatherers selling RFO for use in blending to make HSFO, the outlook appears challenging. Prudent gatherers should seek safe havens for their RFO sooner rather than later, or alternatively take action to preserve or create value for their RFO. Part 2 of this series will discuss in more detail the impact of future changes by market segment and geography, and present general strategies that can enhance or preserve value for each segment of the used oil industry.

Comments on this article are encouraged and may be directed to Tom Murray. Tom Murray has developed technologies in used oil re-refining for over 2 decades and currently offers proprietary licensed solutions for processing used oil and other feedstocks, with 4 issued patents and multiple pending patents. He may be reached at tgm@modernfuels.com or 940-300-8790.
Colonel John Nolan, one of NORA’s founders and its first president, once testified at a Congressional hearing that “there are no pipelines, supertankers or gusher wells to supply used oil. It must be collected in small quantities from hundreds of thousands of generators distributed across the country in the same concentration as the general population.” He then compared the used oil collector to a honey bee. “The used oil collector goes from a quick lube shop to a gas station just as the honey bee goes from flower to flower and collects nectar.”

Since its founding in December 1984, NORA and its members have been doing a lot of explaining about used oil and how the oil recycling system works – and in many different forums. The various audiences include Congress and state legislatures, the U.S. Environmental Protection Agency (“EPA”), the Department of Energy, the Department of Transportation, the Federal Trade Commission, state agencies, federal and state courts, the American Society for Testing and Materials (“ASTM”) as well as several “think tanks” that produce studies and reports.

Accordingly, this summary of NORA’s accomplishments is divided into these categories: legislation, regulation, litigation as well as achievements in the private sector.

**Legislation**

Even before NORA was formed, oil recyclers, such as Bill Ward (president of Eastern Oil in Alexandria, Virginia), met with members of Congress and their staff to explain the fundamentals of oil recycling. The result was the Used Oil Recycling Act of 1980 and the revisions to that statute that were enacted in the 1984 amendments to the Resource Conservation and Recovery Act (“RCRA”). The 1980 law was intended to provide specific authority to EPA to protect public health and the environment by promoting used oil recycling. The Used Oil Recycling Act of 1980 required EPA to issue regulations governing used oil management and to “ensure that such regulations do not discourage the recovery or recycling of used oil...” Pub. L. 96-463, 94 Stat. 2055 (1980) now codified at 42 U.S.C. §6935(a). The legislative history of the Used Oil Recycling Act of 1980 also makes clear that Congress believed that the “recycling of used oil will result in the conservation of a valuable resource as well as diminish the likelihood of posing a threat to the public health and the environment if disposed of improperly.” H.R. Rep. No. 1415, 96th Cong., 2d Sess., 10 (1980). Senator John Chafee, the floor manager of the RCRA reauthorization bill (S. 757) in the Senate and the chairman of the conference committee on the 1984 RCRA Amendments, described the used oil recycling provisions of the 1984 legislation as “a careful effort to balance the stringent environmental requirements of this legislation against the practical experience of businesses that are already engaged in successfully recycling material that would otherwise be harming the environment.” According to Senator Chafee, the used oil recycling industry “has demonstrated how a potentially hazardous substance can be safely collected and profitably recycled into new, useful products.” 130 Cong. Rec. S. 9193 (daily ed., July 25, 1984).

Despite this Congressional support for recycling, it was not clear what EPA would decide when it promulgated the used oil regulations. In 1985, there was a powerful effort to
persuade EPA to classify used oil as a hazardous waste. NORA drafted legislation at the request of Congressman Ike Skelton of Missouri. This bill, H.R. 1593, was introduced by Representative Skelton and was co-sponsored by 131 other members of Congress. NORA members were very energetic in lobbying their representatives to sign on as co-sponsors. The widespread support for Congressman Skelton’s bill influenced EPA to adopt management standards for handling used oil without being designated as a hazardous waste.

1986 was another year that NORA was active on the legislative front. Congress had decided that the 1980 Superfund law required a reauthorization—which also meant an opportunity for interest groups to persuade Congress to adopt an amendment or two. NORA helped organize a coalition of other trade associations, including the National Automobile Dealers Association, the American Petroleum Institute, the Automotive Oil Change Association, and the Independent Lubricant Manufacturers Association, that successfully persuaded Congress to adopt the “Service Station Dealers Amendment” to the Superfund law (“CERCLA”). This 1986 amendment to CERCLA exempts certain used oil generators from CERCLA liability for used oil if the generator complies with environmental regulations and provides a Do-It-Yourself (“DIY”) used oil collection facility. For more than three decades NORA has consistently engaged in on-going efforts to expand DIY collection programs across the country and prevent improper disposal.

In 2008, Senate Bill 546 was moving rapidly through the California Legislature. In its original version, S.B. 546 would have effectively prevented used oil generated in California to be collected and recycled in adjacent states. NORA went to work and persuaded the legislature to amend S.B. 546 so that, with additional testing, used oil could be recycled by out of state facilities.

In 2014, another bill in the California Legislature caught NORA’s attention. Senate Bill 916 would have mandated that used “bio-based” or “bio-synthetic” lubricants be placed in the same regulatory category as petroleum-based used oil. NORA enlisted the help of EPA to reaffirm that bio-based used lubricants did not satisfy the definition of used oil in 40 CFR Part 279. In addition, NORA persuaded the author of S.B. 916 that used oil recycling facilities could not process bio-based lubricants except in very small quantities. Moreover, for the goal of S.B. 916 to be implemented, California would have to establish a collection and recycling system for used bio-based lubricants, entirely separate from used petroleum-based lubricants. The author of S.B. 916 subsequently withdrew his proposed legislation.

**Regulations**

NORA’s first victory on EPA rule-making remains its most important. Now codified at 40 CFR Part 279, the used oil management standards were delivered in two parts. The first part was promulgated in November 1985 and focused on burning for energy recovery including the establishment of two categories of used oil: on-specification and off-specification. It also included the presumption that used oil was destined for recycling. To discourage the mixture of used oil with hazardous waste, EPA adopted the rebuttable presumption which states that used oil containing 1000 parts per million of total halogens is presumed to have been mixed with hazardous waste. There are several ways to rebut this presumption which are summarized in a document published by NORA entitled “How to Rebut the Rebuttable Presumption.”

The second component of the used oil management standards, promulgated in September 1992, established the regulatory requirements for each of the entities in the used oil recycling system: generators, transporters, marketers, proces-
sors and burners. NORA worked with EPA staff in an effort to ensure that these requirements were sensible and did not undermine the marketability of used oil fuel. To accomplish this, NORA’s representatives needed to convince EPA that if used oil was treated as a valuable asset rather than a waste or a liability, market forces would channel used oil to a legitimate destiny: burning for energy recovery or re-refining. EPA eventually adopted that perspective but it was not a certain outcome. Many EPA staff members had worked on RCRA’s hazardous waste regulations which “protected human health and the environment” by imposing numerous stringent regulatory obligations. EPA’s used oil management standards were the first (and best) example of EPA regulations that encouraged recycling, although remaining within RCRA’s jurisdiction.

RCRA allows states to adopt regulations that are more stringent than the federal rules. In the 1990s, when states proposed used oil management standards most states followed the federal rules word for word. But some states such as California, Rhode Island, Oregon, Massachusetts and New Jersey proposed more stringent requirements. NORA provided comments to these and other states during rule-making, urging states to follow the federal requirements.

In the late 1990s, NORA worked on behalf of its wastewater treatment members to persuade EPA to develop sensible treatment standards for Centralized Waste Treatment facilities (“CWTs”) that manage oily wastewater. To accomplish this result, NORA submitted extensive comments and a comprehensive data package to EPA and participated in numerous meetings at the Agency. In addition, NORA enlisted the support of the Small Business Administration. The realistic effluent limitations advocated by NORA were incorporated into the Clean Water Act regulations, now codified at 40 CFR Part 437.

In 2011, EPA, under the authority of the Clean Air Act, proposed a massive set of regulations intended to govern, or prohibit, the burning of non-hazardous secondary materials (“NHSM”). EPA’s original NHSM proposal as well as its revised versions took the position that on-specification used oil fuel was a legitimate fuel, perfectly suited for energy recovery. But, off-specification used oil fuel was not. According to EPA, off-spec used oil had to be incinerated. NORA submitted two sets of comprehensive comments demonstrating that off-spec used oil fully met the “legitimacy” criteria set forth in the Agency’s NHSM proposals, NORA pointed out that off-spec used oil fuel (1) had a typical BTU content equivalent to on-spec used oil; (2) was collected in efficient and reliable collection systems; (3) was managed as carefully as on-spec used oil and under the same Part 279 and SPCC regulations; (4) was burned in industrial furnaces such as cement kilns and steel mills that operated pursuant to Clean Air Act permits; and (5) contained lower concentrations of contaminants than coal (which EPA classified as a legitimate, traditional fuel).

NORA also advised EPA that off-spec used oil would have a more “traditional” history as a fuel because the distinction between on and off-spec fuels was only created in November 1985. Before then all used oil used would be considered off-spec because there were no official specifications. In addition, NORA researched the commercially available incineration capacity for off-spec used oil and concluded that such capacity was virtually non-existent given the vast quantity of the materials required to be incinerated by the NHSM rule. Consequently, if off-spec used oil could not be burned for energy recovery and the commercially available incineration capacity was extremely limited, it would have to be stored. Yet long-term storage capacity was also limited – and costly. The other possibility was that off-spec used oil would be disposed of illegally. EPA never addressed the practical consequences of its proposed NHSM rule.

With respect to the off-spec used oil versus coal contaminant comparison, EPA originally maintained that liquids (such as used oil) could only be compared to other liquids – not solid fuels such as coal. In its second set of comments, NORA asserted that this restriction had no basis in the Clean Air Act nor any logic in evaluating contaminant concentrations. EPA subsequently rescinded this restriction. As a result, NORA submitted a three-part petition to the Agency. The first compo-
ent of NORA’s petition consisted of a detailed comparison of the contaminant concentrations in coal and off-spec used oil. NORA demonstrated that off-spec used oil was a far cleaner fuel than coal.

In the second component of its petition, NORA pointed out that flashpoint was not a Clean Air Act contaminant. Therefore, if off-spec used oil was off-spec solely because of a low flashpoint it could not be regulated by the NHSM rule.

The third component related to the scope of the NHSM rule’s jurisdiction. By definition, the NHSM rule only addressed non-hazardous materials. NORA cited 40 CFR §261.6(a)(4), which states that use oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic, is regulated under the used oil management standards, Part 279. Therefore, this category of used oil cannot be regulated under the non-hazardous secondary materials rule.

EPA concluded that NORA’s position was correct on each component of its petition. Consequently, off-spec used oil was not sentenced to incineration. However, to market off-spec used oil fuel, certain testing is required to establish that the off-spec used oil contains contaminants that are in concentrations below those typically found in virgin fuel oil or coal. Individual testing is required for eleven metals as well as chlorine, fluoride, nitrogen and sulfur. VOCs and semi-VOCs may be tested as a group. Based on the test results for off-spec used oil that NORA submitted to EPA, typical off-spec used oil will easily pass the comparison to coal or virgin fuel. It should be emphasized that with respect to chlorine, the upper limit is 9080 parts per million. EPA agrees that one time testing will be sufficient provided that the composition of the off-spec used oil remains consistent.

The NHSM rule-making was NORA’s longest and most hard-fought regulatory battle. Some may question whether it was worthwhile given that off-spec used oil constitutes a small fraction of the oil recycling industry’s array of fuel and re-refined products. When EPA first announced its intent to target off-spec used oil NORA decided that a regulatory threat to off-spec used oil could unfairly endanger all used oil products. Accordingly, NORA made the effort.

In 2010, NORA launched another regulatory project. This one involved the infiltration of PCBs into the used oil recycling system. It has been estimated that more than 600,000 tons of highly toxic PCBs were produced in the United States between 1929 when they were first manufactured and 1979 when they
were banned from production. Unfortunately, a large quantity of these PCBs found their way into used oil and the victims were used oil collectors and recyclers.

To make matters worse, the costly burden of decontamination was imposed on the collectors and recyclers because of the "anti-dilution rule." This rule, promulgated by EPA pursuant to the Toxic Substances Control Act, means that even when the dilution was unintentional, the PCB-contaminated used oil must be managed according to its original concentration (assuming that can be ascertained) rather than in its "as found" concentration. For example, if an oil recycler detects PCBs in his tanks and the concentration is 2 parts per million and learns that the original concentration was above 50 ppm, then, according to this rule, the entire quantity of the PCB-contaminated used oil must be incinerated – at great cost to the recycler.

NORA proposed to EPA that if an oil recycler followed NORA's "Best Management Practices" but was subsequently received a PCB hit he could manage the PCB-contaminated used oil on an "as found" basis. As a practical matter, this means that if the "as found" concentration of PCBs was less than 50 ppm, the contaminated used oil could be burned for energy recovery in an industrial furnace such as a cement kiln. The Best Management Practices involved enhanced used oil sample retention, enhanced testing for PCBs, annual training, and use of "guard tanks" in order to prevent subsequent contamination of the recycler's facility and equipment. EPA commended NORA's Best Management Practices and NORA's lengthy report on PCB infiltration into the used oil recycling system but has declined, so far, to adjust the anti-dilution rule as NORA has proposed.

In March 2017, NORA submitted a comprehensive petition to the U.S. Department of Transportation ("DOT") that challenged an Oregon Supreme Court decision imposing strict liability (liability without fault) on transporters who rely on the waste determination of generators. Under the Hazardous Materials Transportation Act, DOT's rules preempt any contrary rule by a state or local government. NORA pointed out that its members have relied on the Department's rule in 49 CFR §171(2)(f) which states in part that "a transporter who transports a hazardous waste in commerce may rely on information provided by the generator [offeror] of the hazardous material or prior transporter, unless the transporter knows or, a reasonable
person, acting in the circumstances and exercising reasonable care, would have knowledge that the information provided by the generator or prior transporter is incorrect.” (emphasis added).

According to the petition, NORA members who transport used oil and spent antifreeze exercise reasonable care in collecting these materials. Most NORA members are not licensed hazardous waste transporters because under 40 CFR Part 279 used oil destined for recycling is not a hazardous waste (except in California, Massachusetts and Rhode Island). Although NORA members exercise reasonable care in compliance with the requirements of 49 CFR §171.2(f), they also rely on the certifications of generators that the used oil (or spent antifreeze) has not been mixed with a hazardous waste. Moreover, analytical testing will not necessarily reveal whether used oil or spent antifreeze has been mixed with a hazardous waste.

NORA’s petition also stated that transporters were placed in an impossible dilemma. For example, if a generator tells the transporter that the material is not hazardous but the transporter, in an abundance of caution, wants to avoid liability under the Oregon policy, he cannot create a hazardous waste manifest for the material (only the generator can prepare a manifest). In addition, for obvious reasons, DOT rules prohibit labeling a material as hazardous when it is not. So that first responders are not misinformed in dealing with spills or other emergencies, DOT insists that the material being transported be accurately labeled.

DOT has not yet ruled on NORA’s petition.

In February 2018, NORA submitted comments to the Federal Trade Commission concerning the renewal of the “recycled oil rule.” This rule is mandated by the Energy Policy and Conservation Act (“EPCA”). The purposes of the rule are to encourage used oil recycling, promote the use of re-refined oil, reduce the consumption of virgin oil lubricants, reduce environmental hazards and wasteful practices associated with the disposal of used oil. In its comments, NORA stated that the renewal of the recycled oil rule will continue the fulfillment of these important goals. NORA did recommend several technical changes to the rule including adoption of more precise definitions.

Part Two of this article will cover NORA’s accomplishments involving litigation as well as its private sector achievements.
OPEN CALL FOR 2019-2020 NORA BOARD CANDIDATES

Looking to become more involved in your industry? NORA prides itself on being a member-driven organization. The value of NORA membership continues to increase each year thanks to the efforts of our volunteer leadership of the association. They provide the direction and strategy that allows NORA to deliver more value to members.

If you are interested, it is strongly encouraged that you participate. NORA is always in search of new ideas to make our association better.

This is an open call for candidates for the 2019-2020 NORA Board of Directors. Seven Board seats are available this year. Six seats are for recycling members and there is one open seat for a supplier/vendor member at this time. If you would like to nominate yourself or someone else, please email sparker@noranews.org by September 21, noon Eastern time. NORA will contact you to review the board position responsibilities and answer your questions. The term for each Board seat is two years (2019-2020). Generally, Board members are requested to be at the three NORA events each year as well as on 2-3 additional phone calls per year.

In addition to Board seats, the association is also seeking individuals to serve on a variety of committees for 2019. These positions are not elected; the President appoints them. NORA thanks those who have served in the past and encourages members to help lead our industry into the future.

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From June 20-22, over 140 industry leaders came together in Baltimore for networking opportunities, business development and updates on the used oil market.

During this event, NORA committees and working groups met to discuss the industry challenges and opportunities facing members. Attendees heard presentation on the status of the Electronic Logging Device Rule, Mergers & Acquisitions and more.

The meeting minutes, photos, and other related materials are available for members to view and download by visiting the Past Events page at: www.noranews.org/pastevents
ELD Rule

Major Impact on the Liquid Recycling Industry Today and in the Future

Jerad Childress, an attorney with Scopelitis, Garvin, Light, Hanson & Pear, P.C. provided an in depth presentation regarding the Electronic Logging Device Rule and its impact on the Liquid Recycling industry.

The congressionally mandated Electronic Logging Device (ELD) Rule is meant to enforce the federal hours-of-service rule, which limits time behind the wheel. Now that enforcement of the ELD Rule has kicked in, other serious unintended consequences to companies operating fleets, like NORA members, are becoming apparent. How are companies addressing the reduced trucking capacity and the increasing costs of securing or attracting drivers?

All members can access the PowerPoint in the members only area: NORAnews.org > News & Resources > Presentations > Scroll down to 2018 Mid-Year ELD Presentation.
THANK YOU TO OUR 2018 MID-YEAR MEETING SPONSORS
2018 NORA Conference & Trade Show
November 6-10, 2018
Omni Rancho Las Palmas • Rancho Mirage, California

TRADE SHOW-ALMOST SOLD OUT!
The NORA Trade Show will feature over 40 exhibitors with companies displaying the latest products and services available to the liquid recycling industry. See page 34-35 for the NORA Exhibitor Showcase. Only a few spots remain. Contact Brittanee Gasser at (703) 753-4277 or marketing@noranews.org as soon as possible.

SPONSOR THE EVENT
Many sponsorship and advertising opportunities are available for the 2018 NORA Conference & Trade Show. For as little as $150, you can support your industry as well as promote your company. For more information see pages 36-37. Reserve your sponsorship today using the form on page 32 or contact Casey Parker at casey@noranews.org or (703) 753-4277. NORA thanks all who have already sponsored - your support helps the Conference be a successful and memorable event.

REGISTER NOW
Register online to attend the Conference at www.noranews.org or complete the form on page 31.

CLOSEST AIRPORT: Palm Springs International Airport (PSP) is only 10 miles from Resort.

HOTEL INFORMATION: DISCOUNTED ROOM BLOCK
NORA has secured a block of hotel rooms at the Omni Rancho Las Palmas Resort & Spa for just $209 per night. The $35 daily resort fee has been waived for all NORA attendees who book within the NORA room block. Most attendees will arrive on Tuesday, November 6 and leave on Saturday, November 10. Exhibitors may want to arrive on Monday, November 5, to allow time for exhibit setup.

To reserve your room, call 1-800-THE-OMNI and mention the NORA Conference, or visit www.noranews.org/2018ConfHotel. In order to confirm a hotel reservation, the Omni requires a one night deposit which is refundable if reservation is canceled four days prior to arrival.

The cutoff date for reservations is October 16, after which reservations will be accepted on a space and rate available basis. Be aware that rooms may sell out prior to this date.

Please note that the only valid ways of securing a room in the NORA room block are by calling the OMNI Rancho Las Palmas Resort & Spa or booking through the link on the NORA website.
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### Registration Choices

Full Registration (you may assign/change names to the registration at any time) includes all conference sessions, conference materials, opening reception (members only), two continental breakfasts, breaks and Friday Night Closing Party Dinner. Payment must be faxed or postmarked by the dates to be eligible for the discounted prices.

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**EXTRAS**

- Spouse/Companion: Full Package....$275*
- Spouse/Companion: Friday Only ......$209**
- Golf (Sponsored by Dexsil)...............$125
- Golf Club Rentals ..........................$65

If you selected spouse/guest package, please enter their name here:

If you selected golf, please include your average score:

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### Payment Options

Total Amount Due $ __________

All payments are in US Dollars, drawn on US Bank.

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### Submit Your Registration

- Registration may be scanned and emailed to casey@noranews.org. Please do not email credit card information.
- Please indicate form of payment:
  - Faxed to 703-753-2445
  - Phoned in to Kim Litscher at 703-753-4277
  - Mailed to 7250 Heritage Village Plaza, #201 Gainesville, VA 20155
  - Will pay online: following processing of paperwork, a secure payment link will be emailed to you

*This package includes access to the opening reception on Wednesday including food and drinks, the Thursday spouse brunch, a spouse gift and the Friday night closing party. This package is for spouses and companions of registered attendees; this may not be used for employees of an attending company.

**This package includes food and drinks at the Friday night Closing Party Dinner. This package is for spouses and companions of registered attendees; this may not be used for employees of an attending company. All guests must register in advance for the closing party.

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**NORA Rate $209/night**

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NORA Registration cancellations through August 24: A $100 service charge. Between August 24–October 16: 50% refund of the registration fee. No refunds after October 16.
### Contact Info

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<tr>
<td>Email: <a href="mailto:casey@noranews.org">casey@noranews.org</a> or fax 703-753-2445</td>
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### Sponsorship Opportunities

#### General Sponsorships

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### Conference Book Advertisements

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<td>$1100</td>
</tr>
<tr>
<td>Inside Back Cover Ad*</td>
<td>$925</td>
</tr>
<tr>
<td>Full Page Color Ad (7-1/2&quot; x 10&quot;)</td>
<td>$625</td>
</tr>
<tr>
<td>Full Page B&amp;W Ad (7-1/2&quot; x 10&quot;)</td>
<td>$475</td>
</tr>
<tr>
<td>Half Page Color Horizontal Ad (7-1/2&quot; x 5&quot;)</td>
<td>$475</td>
</tr>
<tr>
<td>Third Page Color Ad (7-1/2&quot; x 3-1/2&quot;)</td>
<td>$375</td>
</tr>
<tr>
<td>Fourth Page Horizontal Color Ad (3-3/4&quot; x 5&quot;)</td>
<td>$275</td>
</tr>
<tr>
<td>Half Page B&amp;W Horizontal Ad (7-1/2&quot; x 5&quot;)</td>
<td>$260</td>
</tr>
<tr>
<td>Third Page B&amp;W Ad (7-1/2&quot; x 3-1/2&quot;)</td>
<td>$200</td>
</tr>
<tr>
<td>Fourth Page Horizontal B&amp;W Ad (3-3/4&quot; x 5&quot;)</td>
<td>$200</td>
</tr>
<tr>
<td>Color Logo by Exhibitor Index (1/2&quot; high)</td>
<td>$150</td>
</tr>
<tr>
<td>Color Logo by Company Index (1/2&quot; high)</td>
<td>$150</td>
</tr>
</tbody>
</table>

* Only one available. Submit form by August 17, 2018 to enter the lottery. Winners of the lottery will be given the opportunity to purchase these sponsorships.

To receive full promotional consideration in print materials please submit sponsorships by September 25, 2018. After this date, sponsorships are still welcome but will receive different promotional consideration.

For more information about the sponsorships, visit noranews.org > Events

### Payment Options

**All payments are in US Dollars, drawn on US Bank.**

<table>
<thead>
<tr>
<th>Total Amount Due</th>
<th>$</th>
<th>Check (payable to NORA)</th>
<th>American Express</th>
<th>Visa</th>
<th>MasterCard</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Name on Card</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Number</td>
<td>Exp. Date</td>
</tr>
<tr>
<td>Billing Street Number &amp; Zip (if different than above)</td>
<td>Email to send receipt (if different than above)</td>
</tr>
</tbody>
</table>

### Submit Your Sponsorship

- **Credit Card Only:** Email: casey@noranews.org or fax 703-753-2445
- **Check or Credit Card:** Mail to: 7250 Heritage Village Plaza, Suite 201, Gainesville, VA 20155
- **Questions:** Call 703-753-4277 or email casey@noranews.org
# 2018 NORA Annual Conference & Trade Show Agenda

**November 7-10, 2018 | Rancho Mirage, California**

## Wednesday, November 7

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 AM</td>
<td>Exhibitor Set Up</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>Conference Check-In/Registration</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>Board Member Meeting</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>New Member/Board Member Reception</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>Grand Opening Reception in Trade Show</td>
</tr>
</tbody>
</table>

## Thursday, November 8

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM</td>
<td>Conference Check-In</td>
</tr>
<tr>
<td>7:00 AM</td>
<td>Continental Breakfast in Trade Show</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>NORA Opening Session</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>Refreshment Break in Trade Show</td>
</tr>
<tr>
<td>10:30 AM</td>
<td>Spouse/Guest Brunch, Open to Registered Spouses/Guests</td>
</tr>
<tr>
<td>10:30 AM</td>
<td>Conference Sessions</td>
</tr>
<tr>
<td>12:30 PM</td>
<td>NORA Golf Tournament</td>
</tr>
</tbody>
</table>

*Brought to you by Dexsil—Pre-Registration Required*

## Friday, November 9

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 AM</td>
<td>Continental Breakfast in Trade Show</td>
</tr>
<tr>
<td>8:30 AM</td>
<td>Conference Sessions</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>Refreshment Break in Trade Show</td>
</tr>
<tr>
<td>11:15 AM</td>
<td>Trade Show Tear Down</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>Conference Sessions</td>
</tr>
<tr>
<td>5:00 AM</td>
<td>NORA Closing Party: All exhibitors, attendees, speakers, and registered spouses are invited to attend this great event!</td>
</tr>
</tbody>
</table>

## Saturday, November 10

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBD</td>
<td>Activities on your own (shopping, tours, departures, etc.)</td>
</tr>
</tbody>
</table>
Conference Exhibitor Showcase

1954 Manufacturing, Inc  AECOM Corporation  Bedford Industries, Inc  Boerger, LLC

Build-All Corporation  ChemTec LLC  ChemTreat  DesertMicro

Dexsil Corporation  Eurecat US  Evolution Sorbent Products  Flottweg Separation Technology, Inc.

Fountain Industries LLC  HazMat Environmental Services  InCon Process Systems - GIG Karasek GmbH  Innovative Fluids
The NORA Conference & Trade Show is 80% sold. To reserve your space, contact Brittanne Gasser at marketing@noranews.org or (703) 753-4277.
2018 SPONSORSHIPS & ADVERTISING
RANCHO MIRAGE, CALIFORNIA
NOVEMBER 7-10, 2018
Secure your sponsorship using form on page 32.

Gain exposure for your company at this premier event in the liquid recycling industry. All members, even those not attending the meeting, may sponsor and advertise. For just a small contribution, you can support your industry and promote your business. All sponsors will be thanked on the NORA website with a link to your company’s website, in Liquid Recycling Magazine which is distributed to 2,000 industry leaders, and in the committee book which is distributed at the event and posted on the NORA website, and on signage at the event. Contact casey@noranews.org with any questions.

GENERAL SPONSORSHIPS

<table>
<thead>
<tr>
<th>Sponsorship Type</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREMIER SPONSOR*</td>
<td>$5000</td>
</tr>
<tr>
<td>GOLD SPONSOR</td>
<td>$1800</td>
</tr>
</tbody>
</table>

PREMIER SPONSOR*
Your logo will be prominently featured on the front cover of the NORA Conference Book and on all name badges. You receive the back cover ad of the conference book. Your company will be thanked at the opening session. In addition, your logo will be screenprinted on the tote bags distributed at registration.

GOLD SPONSOR
Your logo will be printed on the front cover of the NORA Conference Book and on large signage at the event. You receive a complimentary full page ad in the event book. Your company will be thanked at the conference opening session. Includes a golf hole sponsorship and company logo printed on the fabric conference bags. - 10 available

LANYARD SPONSOR*                        | $2900        |

LANYARD SPONSOR*
Your company logo will be printed on the lanyard handed to all attendees.

KEYCARD SPONSOR*                        | $2900        |

KEYCARD SPONSOR*
Your logo will be printed on key cards distributed to NORA guests at hotel check-in.

WATER BOTTLE SPONSOR*                   | $2300        |

WATER BOTTLE SPONSOR*
Your logo will be printed on the bottles of water that will be set at every seat at the beginning of the Conference on Thursday, November 7.

NOTEBOOK SPONSOR*                       | $2200        |

NOTEBOOK SPONSOR*
Your logo will be on the notebook placed at each seat at the beginning of Conference.

AUDIO/VISUAL SPONSOR*                   | $2000        |

AUDIO/VISUAL SPONSOR*
Your logo will be prominently displayed when the ‘splash screen’ is displayed in the main meeting room. As an added bonus, this sponsorship includes a free full page color ad in the Conference Book (a $625 value).

KEYNOTE SPEAKER SPONSOR                 | $2000        |

KEYNOTE SPEAKER SPONSOR
Your company will be thanked prior to the keynote address and you will have the opportunity to address the entire group for one minute. Your logo will appear on a large screen behind the speaker at the beginning of the keynote address. Includes breakfast meeting with Keynoter John Riggins and a signed football
BAG INSERT SPONSOR……………………………… $325
You provide the insert and NORA will distribute it in the conference bags or at golf. Examples include hats, coozies, flyers, etc. Please deliver items to hotel by November 5.

SPOUSE BRUNCH SPONSOR…………………………… $300
Your logo will be printed next to the event on conference agendas.

CANDY BOWL SPONSOR…………………………… $275
Your company logo will be displayed next to the candy bowl at registration on Wednesday, Nov. 7, Thursday, Nov. 8, and on Friday, Nov. 9.

THURSDAY CONTINENTAL BREAKFAST SPONSOR……………………………… $250
Your logo will be prominently displayed on signage at the breakfast included next to this event on conference agendas.

FRIDAY CONTINENTAL BREAKFAST SPONSOR …… $250
Your logo will be prominently displayed on signage at the breakfast included next to this event on conference agendas.

GOLF HOLE SPONSOR ………………………………… $225
Your logo will be printed on a sign placed at one of the holes during the golf tournament.

CLOSING PARTY SPONSORSHIPS

CLOSING PARTY NAMING RIGHTS* …………………. $7500
Exclusive Sponsorship - includes prominent logo placement everywhere closing party is mentioned - large signage at event, NORA website, Conference Book cover, Liquid Recycling magazine, conference agenda and on each table at closing party. Also includes all Level 1 Closing Party Sponsor benefits. Email casey@noranews.org with questions.

LEVEL 1 CLOSING PARTY SPONSOR …………………… $5000
Includes: Large Logo on front cover of Conference Book, reserved table for 10 in premier location at closing party, large logo on Commemorative Photo Jacket, large logo displayed at Closing Party, Closing Party Sponsor ribbon on badge, recognized at Closing Party dinner, color full page ad in the Conference Book ($625 Value), color logo with Company/Exhibitor index in Conference Book ($150), logo on “Thank You” page in post-Conference NORA Magazine. Only four available.

LEVEL 2 CLOSING PARTY SPONSOR …………………… $2000
Includes: Logo on front cover of Conference Book, logo on Commemorative Photo Jacket, large logo displayed at Closing Party, Closing Party Sponsor ribbon on badge, recognized at Closing Party dinner, color half page ad in Conference Book ($475 Value), color logo with Company/ Exhibitor index in Conference Book ($150), large logo on “Thank You” page in post-Conference NORA Magazine. - 8 available.

LEVEL 3 CLOSING PARTY SPONSOR …………………… $1000
Includes: Name on front cover of Conference Book, logo on Commemorative Photo Jacket, logo displayed at Closing Party, Closing Party Sponsor ribbon on badge, recognized at Closing Party dinner, black and white logo with Company Listing in Conference Book, logo on “Thank You” page in post-Conference NORA Magazine. - 12 available.

LEVEL 4 CLOSING PARTY SPONSOR …………………… $500

LEVEL 5 CLOSING PARTY SPONSOR …………………… $250
Includes: Small logo on Commemorative Photo Jacket, small Logo displayed at Closing Party, Closing Party Sponsor ribbon on badge, recognized at Closing Party dinner, small logo on “Thank You” Page in post-Conference NORA Magazine.

CONFERENCE BOOK ADVERTISING

The Conference Book is distributed to attendees, new members who join throughout the year, and posted on the NORA website. Attendees refer to this book for contact information with all attendees and exhibitors, the event agenda, and exhibitor and speaker information. NORA will design your ad for free.

Inside Front Cover Ad*………………………………………. $1100
Inside Back Cover Ad*……………………………………. $925
Full Page Color Ad …………………………………………. $625
Full Page Black/White Ad ………………………………. $475
Half Page Vertical/Horizontal Color Ad ……………… $475
1/3 Page Horizontal Color Ad ……………………………… $375
1/4 Page Horizontal Color Ad ……………………………… $275
Half Page Black/White Ad ………………………………. $260
1/3 Page Horizontal Black/White Ad ……………………. $200
1/4 Page Horizontal Black/White Ad ……………………. $200
Color Logo by Company Index ………………………… $150
Color Logo by Exhibitor Index ………………………… $150

*Only one available. Submit form by August 17, 2018 to enter the lottery. Winners of the lottery will be given an opportunity to purchase these sponsorships.
Doing Your Job
On Thursday, November 8, 2018, NFL star running back John Riggins will provide the NORA Keynote Address. He observes that the most successful football players have a high threshold for pain and that, similarly, in the business world, the most successful seem to have a high tolerance for frustration. In today’s marketplace, nothing is guaranteed, but success is still within reach if you stay focused on job number one. Famous for getting the job done on the playing field, the Washington Redskins legend and motivational speaker shares how small successes result in big wins and high levels of satisfaction for you and your team.

Biography
John Riggins was born in Seneca, Kansas and attended Centralia High School where he starred in football and became a two-time state champion in the 100-Yard-Dash. At 6’2” and 230 pounds, he possessed a dazzling combination of size and speed. While playing football at the University of Kansas, Riggins surpassed Gale Sayers’ career rushing record. In 1971, he was selected as the sixth overall pick by the New York Jets.
He spent five years with the Jets and became the first back in franchise history to rush for more than 1000 yards in a single season. In 1972, he was voted the Jets’ Most Valuable Player. In 1976, he earned his first trip to the Pro Bowl. Later that year, he joined the Washington Redskins where he remained until retiring in 1985.

In 1983, Riggins helped lead the Redskins to their first Super Bowl victory while being named the game’s MVP. Riggins still holds the record for most carries in a Super Bowl (38). He became only the second player in NFL history, behind Jim Brown, to rush for more than 100 career touchdowns. Riggins, long considered by many to be the most popular Redskin in history, was known by the fans as “The Diesel” for his bruising style of running.

Riggins was inducted into the Pro Football Hall of Fame in 1992. He was also inducted into the Redskins Ring of Fame in 1990 and the Kansas University Ring of Honor in 2007. He hosted, “Riggo on the Range,” his own outdoor hunting, fishing and cooking show on the Discovery Channel. This led him to his own food and beverage line: John Riggins Sausage and John Riggins 4th & 1 Pilsner.

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Container recycling programs tailored to your business

Brandon Cutt – Operations Manager
706-463-0726
bcutt@imacc-corp.com

Scott Richards – Account Manager
502-821-2222
srichards@imacc-corp.com

www.imacc-corp.com
NORA Supplier/Vendor Members in good standing as of 7/17/18 are listed below. Companies in **bold** have an ad in this magazine. Companies with a $ are part of the NORA $ave program by offering discounts/value added services to NORA members. Contact NORA to learn more about the NORA $ave program. Companies that are in **red** are exhibiting at the 2018 NORA Conference & Trade Show as of 7/17/18.

---

1954 Manufacturing, Inc
courtney@1954mfg.com
940-521-9807

---

Accurate Energy
paul@accurate-energy.com
302-947-9560
Accurate-Energy specializes in providing recycled fuel oil products, environmental services, and creative market approaches for customers who require exceptional service and value.

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AECOM Corporation
Jack.Waggener@aecom.com
615-771-2480
URS/AECOM Corporation is a full service engineering design firm with over 300 offices and 100,000 employees around the world. Services include environmental engineering consultant - water, air, solid waste, used oil.

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AGC International
adeflorio@agcinternational.com
651-202-0563
Re-refining and Filtration equipment

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Air Products & Chemicals
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800-654-4567
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Amchem Inc.
craig@amcheminc.com
903-236-0138
Chemical Distribution

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American Testing Technologies
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877-634-9906
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713-429-6343
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rustyp@afr.cash
904-222-1174
Reclamation of auto fluids to Include oil; Gasoline; Antifreeze

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219-841-2124
Consulting

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alex@sebrightproducts.com  
800-253-0532  
Bright Technologies a division of Sebright Products, Inc., manufactures Oil Filter recycling equipment along with other recycling equipment for dewatering and solidification of wet materials. Such as belt filter presses, conveyors, extruders, densifiers.

Brown Gibbons Lang & Company, LLC  
ekaplan@bglco.com  
216-920-6634  
Investment Banking Firm

Brown Industrial Inc  
craig@brownindustrial.com  
937-693-3838  
Technology leading custom designers & manufacturers of trailers & truck bodies for the rendering, oil filter recovery & recycling industries.

Build-All Corporation  
rberg@build-all.com  
800-558-2148 x12  
Manufacturer of parts washers and degreasing equipment.

Cambridge Consulting Group  
rangiapan@cambridge-cg.com  
248-743-4300  
Insurance

ChemTec, LLC  
bryangray@chemtecllc.com  
812-499-8408  
Used oil and wastewater treatment chemicals and many more

ChemTreat  
jlawson@chemtreat.com  
865-250-5434  
An industry leading supplier of water treatment and oil processing specialty chemicals.

Citamora Processes Inc.  
gmarquez@citamora.com  
305-725-2805  
Citamora develops innovative solutions to recycle used oils into high quality fuels, lubricants and other products. We deploy easy to use, low cost technologies to maximize process yields & product quality, generating a strong return on investment.

Clairvest Group Inc  
michaelc@clairvest.com  
416-413-6007  
We are a private equity firm which provides equity capital to help finance organic growth and/or acquisition growth. We have a particular focus on the environmental services industry having completed five significant investments since 2006.

Clearwater Engineered Chemistry  
ericstone3@gmail.com  
817-876-1714

Complete Environmental Products (CEP)  
rscharrer@cepsorbents.com  
713-921-7900  
CEP is a leading supplier and Mfg. of high quality absorbents, secondary containment, spill kits, etc. Since 1994, we have served national suppliers to one-man shops for any application including oil recycling, refining, transportation and many more

DesertMicro  
barryg@desertmicro.net  
904-247-4285  
DesertMicro provides management software for oil waste, recovery and recycled industry. PetrolManager provides detailed history, extensive billing options, container tracking, lab results, profiling, routing and dispatching.

Dexsil Corporation $  
ckopylec@dexsil.com  
203-288-3509  
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Dober  
saroyan@dober.com  
773-294-1870  
Full service chemical manufacturer specializing in antifreeze additives, oil treatment, wastewater treatment, boiler water treatment, and cooling water treatment.
**Dolphin Centrifuge**
sales@dolphincentrifuge.com
248-522-2573
Dolphin Centrifuge specializes in Centrifuge based Oil Recovery Systems. Our systems are primarily built around New & Reconditioned Alfa Laval Centrifuges. Complete modules include Hi-Speed Disc Centrifuges, Automatic PLC Controls, Feed Pumps, Heaters etc.

Eastman Chemical Company
taihi.egres@eastman.com
423-229-2000
Eastman Therminol heat transfer fluids are high-performance fluids specifically designed for precise temperature control, providing superior heat-stability in systems with operational temperatures from -175°F to 750°F.

**Ecosorb International Inc.**
larry@ecosorb.com
713-413-1173 x4714
Environmentally Friendly Absorbents

**EHS Momentum**
cduffie@ehsmomentum.com
469-999-2500
EHS Consulting and Software

**EnergyLogic**
dnewburry@energylogic.com
615-471-5221
EnergyLogic manufactures and sells used oil furnaces and boilers, less than 500,000 Btu/hour in size. EHS Consulting and Software

**Environmental Packaging Technologies**
adoris@eptpac.com
713-961-2795
Flexitanks, liquiride tanks for moving bulk non-haz liquid products. Also temporary static storage solutions.

**Eurecat US**
TCampbell@eurecat.com
832-284-0609
Supplier of regenerated hydrotreating catalyst, catalyst sulfiding/activation services, catalyst regeneration, and specialty grading

**Evolution Sorbent Products**
chris@esp-us.com
630-450-6558
Oil absorbent and spill control products (environmental, industrial, hazmat).

**Engine & Accessory, Inc.**
rcs@rampstar.com
305-573-2268
Waste Oil Trucks/Vacuum Trucks

**Flottweg Separation Technology, Inc.**
esweeney@flottweg.net
203-838-6120
Decanter, Tricanter, and Separator Centrifuges for oil, water, solids separation
The unit transforms used oil, waste oils, marpol and asphalt flux into diesel. It is simple, reliable and truly efficient. One of 5 innovations covered by worldwide patents and patent applications.

**International Engineering Services**

Our engineers have extensive experience in crude refining and heavy oil upgrading. For the past 20 years, they specialized in used and waste oil technologies. Their engineering work provides high quality, innovative, client and market oriented solutions:

1. **Diagnostics:** Evaluating the gains for you
2. **Plant design:** Customized Turnkey solutions between 6 and 12 months
3. **Enhance performance of existing plants:**
   a. Reduce equipment fouling
   b. Treat more types of feedstock (not just ULOs)
   c. Increase the quality and quantity of valuable products
   d. Stabilize and make products meeting specifications without expensive hydrotreating.

**For Inquiries**

www.sweetgazoil.com
LouisBertrand@sweetgazoil.com
1-514-502-5098

**Patent Applications**

Anti-Fouling distillation (PCT/CA2013/050111)
Fouling resistant cracking (PCT/CA2011/050207, PCT/CA2013/050091, PCT/CA2013/050092)
Stabilizing/desulphurizing (PCT/CA2011/050117)
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201-842-7672

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swickardt@gtlaw.com
916-442-1111

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Oil and Petroleum Trading solutions via truck and rail nationwide.

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Investment bank providing range of advisory services: M&A; debt/equity financing, valuation, restructuring. Environmental Services industry deals include sale of Siemens HS to FCC Environmental, Thermo Fluids to Heckmann and Safety-Kleen to Clean Harbors.

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IHS is the leading research and consulting company to the global energy industry. IHS acquired Purvin & Gertz in November 2011, adding Purvin & Gertz’ strengths in the petroleum refining, lubricants and base oil industries.
NORA represents over 350 leading companies in the liquid recycling industry.
The 2018 event will attract nearly 350 industry leaders and feature 45+ exhibit booths. We invite you to attend for networking with leading executives in the oil recycling industry, education, and information on the latest products and technologies in the industry.

Register online at noranews.org > Events or call (703) 753-4277
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502-821-2222
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602-272-2298

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