UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

December 4, 2020

OFFICE OF
LAND AND EMERGENCY
MANAGEMENT

Mr. John Schweitzer
American Composites Manufacturers Association
2000 North 15th Street, Suite 250
Arlington, Virginia 22201

Dear Mr. Schweitzer:

Thank you for your letter of August 28, 2020, to the U.S. Environmental Protection Agency (EPA), requesting a Resource Conservation and Recovery Act (RCRA) regulatory determination on hazardous waste generator activities associated with polymerization (POLYM) as a treatment method. Specifically, in your letter you request EPA to issue guidance stating that:

1. The use of indirect heat to activate and support the catalyst used for POLYM treatment of scrap resins in a container is not classified as *thermal treatment* of hazardous wastes and can be conducted without a RCRA permit when hazardous waste container management standards are met; and

2. Closure of hazardous waste containers undergoing POLYM treatment with an unsecured lid or alternative covering (i.e., a *no visible opening* standard) is appropriate during onsite generator accumulation when applicable hazardous waste Subpart CC standards are met.

We have examined the relevant federal RCRA regulations, consulted with state and EPA Regional personnel and reviewed state and federal guidances on the issues raised in your letter. In doing so, we determined that the factors that must be considered in these regulatory interpretations are numerous and highly context dependent (see below). Thus, it is not practical for us to provide guidance that is uniformly applicable. Furthermore, the requested guidance would have broad implications beyond your industry. Rather, we believe that is best to continue to rely on regional and state inspectors 'on the ground' since they have a fuller picture of a given facility's entire process, allowing them to make appropriate determinations on a case-by-case basis. Nevertheless, we would like to provide some information that we hope will be helpful for your members when considering using POLYM treatment in generator accumulation containers:

1. Small quantity generators (SQG) and large quantity generators (LQG) with central accumulation areas are subject to the Part 265 Subpart I container standards or Part 265 Subpart J tank standards regardless of whether they are accumulating or treating the hazardous waste in the units (see page 10168 of the preamble of the March 24, 1986 Federal Register).

2. SQGs and very small quantity generators (VSQGs) are not subject to the air emissions standards in Part 265 Subpart CC. LQGs are the only category of generator that must comply with Part 265 Subpart CC (see § 262.17(a)(1)).

3. A waste container with a design capacity that is less than or equal to 26.4 gallons (0.1 m^3) is not subject to the air emissions standards in Part 265 Subpart CC (see § 265.1080(b)(2)). This may be useful to your members that are LQGs with smaller operations.

4. If an LQG certifies that a hazardous waste accumulation/treatment unit is equipped with an operating air emission control in accordance with an applicable Clean Air Act regulation codified in 40 CFR Part 60, 61, or 63, then the hazardous waste unit is not subject to Part 265 Subpart CC (see § 265.1080(b)(7)).

5. Polymerization as a waste treatment method could, in some instances, meet the definition of a waste stabilization process, as defined in § 265.1081 in Part 265 Subpart CC. If so, and if the polymerization occurs in containers with a design capacity of greater than 26.4 gallons, then the generator treatment containers would be subject to the Container Level 3 standards under Subpart CC (see § 265.1087(b)(2)).

6. If the generator is treating to meet the Land Disposal Restrictions (LDR) treatment standard, the generator must have a Waste Analysis Plan (WAP) (see § 268.7(a)(5)).

Please note that this letter discusses the federal RCRA hazardous waste regulations. Under section 3006 of RCRA, individual states can be authorized to administer and enforce their own hazardous waste programs in lieu of the federal program. States that are authorized to implement the RCRA program have authority to promulgate regulations that are more stringent than the federal program. If you have any question about the federal hazardous waste regulation discussed in this letter, please contact Kristin Fitzgerald at 703-308-8286 or fitzgerald.kristin@epa.gov.

Sincerely,

Carolyn Hoskinson, Director
Office of Resource Conservation and Recovery

Encl: Incoming letter from ACMA

August 28, 2020

The Honorable Andrew Wheeler
Administrator
U.S. Environmental Protection Agency
Wm. Jefferson Clinton Building (MC 1101A)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Mr. Peter Wright
Assistant Administrator
Office of Land and Emergency Management
U.S. Environmental Protection Agency
Wm. Jefferson Clinton Building (MC 5101T)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Request for RCRA Regulatory Compliance Determinations on Hazardous Waste Generator Activities Associated with POLYM Treatment

Administrator Wheeler and Mr. Wright:

Before making our detailed request for certain actions by EPA, we offer the following summary.

Composites manufacturers make products like wind turbine blades and recreational boats by combining polymeric *resins* and other materials (often including glass or carbon fiber reinforcement) with organic peroxide *catalysts* that cause a polymerization reaction converting the liquid mix of raw materials into an inert durable solid product. Elevated temperatures are always needed for the complete polymerization process. Sometimes the exothermic action of the catalyst and resulting polymerization cause sufficient heating of the resin, and in other cases additional indirect heat is applied.

In 1997, EPA approved the use of *this same process* to convert scrap resin, a flammable liquid hazardous waste, into a non-flammable solid that can be safely disposed of as non-hazardous waste. In other words, EPA authorizes the same process used to convert liquid raw materials into finished products such as recreational boats to convert small quantities of discarded hazardous waste resin into solid inert material that can be disposed of as ordinary non-hazardous waste. EPA refers to this as the POLYM waste treatment process and allows its use by composites manufacturers without needing a hazardous waste treatment permit. Using the POLYM process eliminates a source of hazardous waste that would otherwise be shipped to treatment facilities by truck over our roads and highways, increasing safety for everyone and reducing costs for composites manufacturers.

Recently, some composites manufacturers using indirect heat in addition to catalysts to make finished composite products have found that the application of this indirect heat to scrap resin is mistakenly considered by their state regulatory agencies to be *thermal treatment* and not permitted under POLYM. Some state agencies have also mistakenly insisted on secure air-tight sealing of the drums used for POLYM treatment of scrap resin; we believe this cannot have been EPA's intent as POLYM always involves heating of the scrap resin and therefore venting is needed for safety.

In our letter today, we ask EPA to clarify that the application of indirect heat to scrap resin in addition to catalysts is not *thermal treatment* and is permitted under POLYM. We also ask EPA to clarify that a *no visible opening* standard is appropriate for drum closure during the POLYM treatment process.

Our formal submission follows.

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1) Introduction

The American Composites Manufacturers Association (ACMA) respectfully submits this urgent request for formal guidance by the U.S. Environmental Protection Agency (USEPA) that specific hazardous waste generator activities currently being undertaken by ACMA members when conducting USEPA-approved POLYM treatment of high TOC D001 ignitable hazardous waste are lawful and compliant with the Resource Conservation and Recovery Act ('"RCRA''), 42 U.S.C. § 6974(a) and RCRA's implementing regulations.[1] The specific generator activities for which we are requesting USEPA to issue guidance determinations on RCRA compliance include:

a) The use of indirect heat to activate and support the catalyst used for POLYM treatment of scrap resins in a container is not classified as *thermal treatment* of hazardous wastes and can be conducted without an RCRA Permit when hazardous waste container management standards are met; and

b) Closure of hazardous waste containers undergoing POLYM treatment with an unsecured lid or alternative covering during onsite generator accumulation when applicable hazardous waste subpart cc standards are met.

Each of these generator activities for which we are requesting USEPA to issue guidance and compliance determinations is further discussed in Section 3 below. The current lack of USEPA guidance on these activities has led to inconsistencies in hazardous waste compliance determinations for ACMA members with plants in different states with similar RCRA authorized programs. Furthermore, we believe the lack of USEPA guidance has caused some states to reach incorrect RCRA compliance determinations on the activities when they are associated with authorized onsite generator POLYM treatment.

Our urgency on this matter is the result of an increasing number of ACMA member companies becoming subject to what we believe are incorrect state agency interpretations of the applicable federal RCRA regulations. Therefore, USEPA's timely assistance in providing guidance clarifying these compliance issues will be of great assistance and cost-saving to the US composites industry sector.

2) ACMA's Interest in Requesting Agency Action

ACMA is the polymer composites industry trade group representing an industry comprised of more than 1,000 small and large manufacturing companies with operations in all 50 states. ACMA member companies have an estimated 250,000 employees and represent more than an estimated $100 Billion in composite product sales. Composite plastic products are used in a wide range of critical US industry sectors, including construction, power generation and transmission, transportation, and defense.

ACMA member companies using resin mixtures for the production of composite products may generate liquid scrap resin and scrap liquid resin-contaminated debris from a wide range of production and maintenance operations.[2] These wastes are typically classified as High TOC D001 ignitable hazardous wastes based on a liquid closed-cup flashpoint of less than 140° F.

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[1] 40 CFR Parts 260 - 272

[2] Included under the term *resin* are *gel coats*, which are resins formulated to serve as the exterior of a product and provide durability, color and environmental resistance. See https://www.compositesone.com/product/gel-coats-pigments/

To reduce the additional costs and environmental risks associated with hazardous waste transportation and offsite disposal, ACMA member companies are continually seeking ways to reduce the volume of hazardous wastes that are both generated and shipped offsite. As a result, many ACMA member companies are already using onsite generator POLYM treatment to convert hazardous waste resins and resin-contaminated debris into inert non-hazardous solid plastic waste.

ACMA estimates that composite sector plants currently conducting onsite generator POLYM treatment are keeping millions of pounds of liquid hazardous waste from being transported on US highways. This in turn significantly reduces the potential risk of an accident on the way to offsite RCRA treatment and disposal facilities and ultimately the risk of offsite disposal.

Individual plants depending on their size, are also estimated to be saving from $50,000 to more than $250,000 in annual operating costs related to hazardous waste disposal. As a result, we estimate that the annual cost savings to the composites industry from the current use of onsite generator POLYM treatment range from at least $10 to $20 million.

Many of the remaining composite companies are evaluating the use of POLYM treatment in the future. A major barrier for many of these companies considering the use of POLYM treatment is the uncertainty regarding specific technical onsite management aspects of conducting the treatment in containers both safely and in compliance with hazardous waste regulations at their individual plants. ACMA believes the annual composite industry cost saving could be 2 or 3 times greater than the current savings if USEPA provides the additional guidance we are requesting. This guidance would further clarify, and we believe, confirm that the specific actions taken by our member companies while conducting POLYM treatment as described below fully comply with federal RCRA regulations.

3) POLYM Treatment Overview

USEPA authorized the treatment of high TOC D001 ignitable hazardous waste by the process identified as POLYM as part of final land ban regulations promulgated in May 1997.[3] This regulation authorizes hazardous waste generators to "employ polymerization as an alternative method of treatment for certain ignitable wastes" before land disposal as non-ignitable solid (non-hazardous) waste.

As described in the final rule, the high TOC D001 ignitable wastes can consist of scrap uncured polyester resins or other types of materials used in the manufacture of a wide range of composite products. Polymerization can be generally described as "a technique by which liquid resin monomers are reacted to form a solid polymer".[4]

As described in Exhibit 1, the polymerization reaction for a polyester styrene-containing resin is initiated when a catalyst decomposes to form reactive *radicals*, which in turn initiate formation of chemical bonds across *vinyl functional groups* (*unsaturated* carbon-carbon double bonds) in the styrene and polyester resin molecules, creating a solid cross-linked polyester matrix.

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[3] Federal Register (FR) Vol. 62, No. 91 / Monday, May 12, 1997, pp 25998-26040

[4] See the State of Washington, Department of Ecology, "Fact Sheet 14-04-002, Treatment Specific Guidance Polymerization" at https://fortress.wa.gov/ecy/publications/documents/1404002.pdf

Exhibit 1: Polymerization Reaction Within a Polyester Resin Containing Styrene

2.2 Styrene Use in Unsaturated Polyester Resins

Unsaturated polyester resins form a backbone polymer matrix chemistry for the composites manufacturing industry. Figure 2 displays a generic unsaturated polyester resin radical polymerization reaction. The polymerization reaction is initiated via a peroxide, typically methyl ethyl ketone peroxide (MEKP). The resulting radical reacts with the vinyl functional group on a styrene molecule, whereby the radical will propagate to react with either additional styrene or a neighboring polyester chain. The resulting cross-linked matrix offers good mechanical performance and acceptable resistance to environmental degradation.

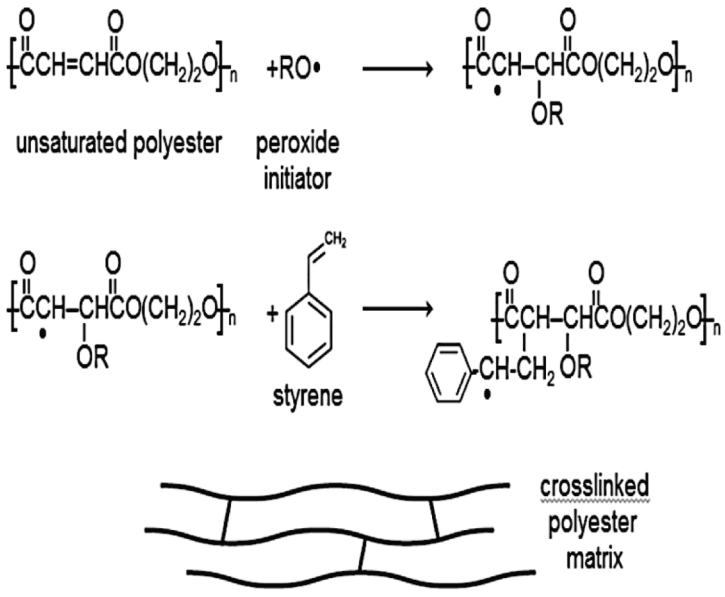

Figure 2. Polymerization reactions within a polyester resin.

Source: Exhibit 1: Technical Report 74 "Reducing the use of styrene monomer in unsaturated polyester resins" University of Massachusetts Lowell, Toxics Use Reduction Institute, June 2013

In issuing the final POLYM rule, USEPA recognized that:

> *In the polymerization treatment process (POLYM), the wastes are reacted to produce a chemically stable plastic in the same manner that commercial plastics are formed…… Small quantities of polyester/styrene monomers and MEK peroxide wastes can be reacted together*

> *to create fiberglass scraps. The scraps are inert and do not exhibit the hazardous waste characteristics of toxicity, ignitability, corrosivity, or reactivity*.[5]

In practice, hazardous waste scrap resins often already contain catalyst at the time of generation that results in polymerization (POLYM) during onsite accumulation in their containers (i.e., drums, buckets) without the addition of more catalyst or other action by the generator. In those cases, the generator will take no additional actions but to accumulate the hazardous waste resin or gel coat onsite in a proper container in accordance with hazardous waste regulations until polymerization is completed.

USEPA confirmed in response to comments for the POLYM rule that scrap resins generated with sufficient catalyst to undergo polymerization without more catalyst added also met the definition of POLYM treatment.[6] Specifically, USEPA stated that:

> *If a waste monomer has sufficient amounts of catalyst mixed with it for polymerization to occur, then that process may meet the definition of POLYM.*[7]

In some cases, the generator may also add a catalyst to spent resins and gel coats after the hazardous waste is generated to provide for or ensure the active initiation (i.e., activation) of the polymerization process. USEPA's POLYM final rule preamble section also discusses the addition of a catalyst to scrap resins and gel coats after they are generated for the performance of POLYM treatment.[8] Specifically, USEPA stated:

> *To allow materials and a process to be used to construct water pipe and boat hulls, but prohibit the same process from being used to treat excess materials from those same processes does not make sense. In addition, the treatment of these chemical components using POLYM does convert an ignitable waste into a non-ignitable solid prior to disposal. Treatment occurs as the organic materials react to form a hard, inert material*. [9]

Based on this language, ACMA believes USEPA generally considered the "process" of undertaking POLYM "treatment" to be similar to the standard production "process" used to produce solid composite products that may go on or in the land and water. As a result, the disposal of solid POLYM treated resin as non-hazardous solid plastic waste in landfills had no more potential environmental impact than the future normal designed use of many solid composite products.

4) Requested USEPA Compliance Determinations Related to POLYM Treatment

In the POLYM treatment final rule, USEPA specifically recognized that this treatment process can be conducted onsite by generators without having to obtain a RCRA permit provided the treatment activity (1) occurred in tanks, containers or containment buildings that complied with applicable RCRA generator

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[5] FR Vol. 62 No. 91, p26007

[6] See https://archive.epa.gov/epawaste/hazard/web/pdf/polm.pdf, EPA Docket #F–97–PH4F–FFFFF.DCN PH4P113, Archive Summary of Comments, COMMENTER Chemical Manufacturers Assn, RESPONDER JL, SUBJNUM 113.

[7] Ibid, p 43.

[8] FR Vol. 62, No. 91, p 26008

[9] FR Vol. 62, No. 91, p 26008

management standards and (2) the generator complied with applicable RCRA air emission standards set out in Subparts AA, BB, and CC of Part 265.

Unfortunately, the POLYM final rule does not discuss several additional essential aspects of the POLYM treatment process or the RCRA container management issues associated with POLYM treatment. USEPA also did not provide additional insights into acceptable safe management practices for containers undergoing onsite POLYM treatment while in less than 90-day accumulation areas that also comply with the RCRA regulations.

This is a critical issue as containers with resins undergoing polymerization are not in a static state. ACMA believes the accumulation of containers of hazardous waste resin undergoing POLYM treatment merit specific USEPA guidance on safe practices that also comply with RCRA regulations.

Further discussion of these issues and ACMA's position on the RCRA compliance aspects are provided below.

a) The use of indirect heat to activate and support generator polym treatment in a container is not "thermal treatment."

Many composite product production processes require the use of indirect heat to increase the thermal temperature of the resin to "activate" the catalyst that is present in resin to start the polymerization process. Indirect heat is also used to sustain the catalytic process and polymerization in many large component parts.[10] As a result, composite product production equipment such as laminate presses and pultrusion lines use heated plates or dies to activate the catalyst, then shape and "cure" the resin into a specific composite product.

One of the most common classes of resin catalysts is organic peroxides, and one of the most common liquid organic peroxide is methyl ethyl ketone peroxide (MEKP). However, there are many other types of catalysts, including dibenzoyl peroxide, which comes in powdered form. Different organic peroxides and other chemical catalysts have "activation" temperatures required for initiating the polymerization process ranging from as low as 40°F to as high as 140°F. Based on the inherent fire and safety hazards of catalysts with lower activation temperatures, composite companies generally seek to use catalysts with higher activation temperatures whenever feasible.

Based on these technical aspects, indirect heat is often required to elevate the temperature of a resin or gel coat sufficiently to activate the catalyst present and enable polymerization to occur. This is true for both production processes and the POLYM treatment of scrap resin. As shown in Exhibit 1, polymerization always requires the catalyst to be present in the scrap resin regardless of whether or not indirect heat is required for activation of the catalyst.

Based on these facts, ACMA believes when the final rule was developed, USEPA was aware that POLYM treatment could require indirect heat to add thermal energy for catalyst activation and support of the polymerization process. This conclusion is supported by ACMA industry experts that state:

[10] The indirect heat during the pultrusion process is most often applied with a die that also creates the form for the composite product. see https://en.wikipedia.org/wiki/Pultrusion

"indirect low-temperature heat can be applied to the containers accumulating the hazardous waste to ensure initiation of any catalyst used for polymerization"[11]

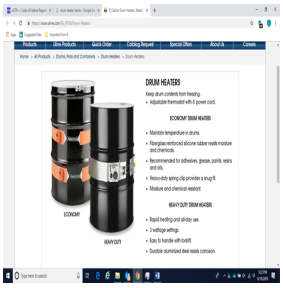
ACMA believes that the application of indirect heat by a generator after a scrap resin is generated to initiate and sustain the POLYM treatment process is not *thermal treatment* as defined by RCRA.

The application of indirect heat to hazardous waste scrap resins can be a required component of the POLYM treatment process. For example, resins containing catalysts with initiation temperature above the typical ambient temperatures in a composites plant that are scrapped before activation in a heated press will subsequently require indirect heat to initiate the POLYM treatment process after generation as a hazardous waste.

Furthermore, scrap hazardous waste resins containing catalysts with lower activation temperatures may be stored in unheated 90-day accumulation areas during colder months in northern states such that polymerization also will not occur or be sustained. In these cases, the application of indirect heat ensures the scrap resin temperature is elevated high enough so that polymerization will initiate and continue so that the POLYM treatment process is completed.

The application of indirect heat by ACMA member companies is performed using several methods. First, companies may use outer heat bands for steel accumulation drums and heat plates for smaller accumulation containers such as 5-gallon or 1-gallon pails. Exhibit 2 below shows examples of exterior heat bands used for 55-gallon steel drums.

Exhibit 2: Example of Indirect Drum Heating Equipment



Source: http://www.thermalinc.com/electheaters/drumheat.htm

Indirect heat may also be applied to activate catalyst present in containers of scrap resins by using heated cabinets, low-temperature "cure" ovens, and even entire heated rooms that also serve as 90-day accumulation areas.

[11] "Guidance on Reuse and RCRA Generator Treatment of Hazardous Waste Resins and Gel Coats", Prepared for: American Composites Manufacturers Association, Prepared by: Labyrinth Management Group, Inc., July 2019.

All of the indirect heating methods are designed only to increase scrap resin temperatures sufficiently, activate the catalyst, and sustain the polymerization process. Based on these factors, using indirect heat to aid in the polymerization process is not classified as "thermal treatment" as defined in 40 CFR Part 260.10.

The RCRA definition of thermal treatment is:

> *"the treatment of hazardous waste in a device which uses elevated temperatures as the primary means (emphasis added) to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge."*[12]

ACMA believes the facts support a conclusion that the indirect heat equipment employed and the slightly elevated temperatures used to activate the catalyst and potentially sustain the polymerization process (i.e., heat bands, heated cabinet, heated rooms) are not the "primary" means to change the physical composition of the scrap resin. The application of indirect heat clearly does not result in incineration, molten salt, pyrolysis, calcination, wet air oxidation, microwave discharge, or evaporation, assuming compliance with RCRA Subpart CC volatile emission controls.

As discussed by USEPA in the POLYM rulemaking, the "treatment" and change in the physical characteristics of the hazardous waste occurs as a result of the polymerization process. More importantly, in POLYM treatment, polymerization and the subsequent solidification of the scrap resin would not occur without the presence of the catalyst even if indirect heat was present.

The POLYM polymerization process resulting in the catalyst cross-linking the molecules in the scrap resin waste is the "primary means" used to change liquid D001 hazardous waste resin or gel coat into a non-hazardous solid plastic waste. Therefore, generators using indirect heat to activate and sustain the onsite POLYM treatment of scrap resin in containers do not require an RCRA permit as long as container management and RCRA Subpart CC regulations are met.

ACMA is requesting that USEPA confirm this RCRA compliance determination.

b) Closure of containers undergoing POLYM treatment using unsecured lids or alternative coverings

As discussed above, USEPA recognizes onsite generator treatment of scrap resins in a container is authorized without an RCRA permit providing hazardous waste container management standards are met. However, POLYM treatment in containers also presents specialized container safety aspects that require additional USEPA guidance and compliance determination.

According to 40 CFR §265.173, the management of containers requirements include:

> *(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.*
>
> *(b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.*

[12] 40 CFR § 260.10 - Definitions.

USEPA has provided existing guidance that these requirements generally mean that on containers such as 55-gallon drums, the container cover should be "*properly secured with snap rings tightly bolted, bungholes capped, and, where appropriate, pressure-vacuum relief valves to maintain the container internal pressure to avoid explosions*."[13] These requirements would apply for containers accumulated in 90-day areas. USEPA has also stated in guidance that in generator satellite areas, a container accumulating liquid hazardous wastes is to be closed with all openings or lids are "*properly and securely affixed to the container, except when wastes are being added to or removed from the container*."[14]

Based on ACMA member experiences, many state hazardous waste programs have incorporated this USEPA guidance. However, in providing this container guidance, ACMA believes USEPA did not fully consider the safety aspects of requiring a secured lid on a 55-gallon drum of scrap resin containing catalyst that may already or will undergo POLYM treatment during onsite accumulation.

First, the process of polymerization is an exothermic reaction that generates heat and non-volatile gases such as carbon dioxide that has the potential to build-up within a sealed drum or other container to the point of explosion, if not depressurized. Therefore, securing a drum lid or any other "cover" on a container of catalyzed scrap resin without a pressure relief mechanism can result in the rupture of the container. The explosive force required is also a process safety hazard to employees and the plant.

Second, according to ACMA's member experiences, using drum lids with pressure relief valves often is not effective in mitigating the potential for pressure build-up and drum rupture or explosion. The small pressure relief valves traditionally designed for volatile organic vapors will become clogged and closed with polymerized resin (i.e., solid plastic) over time during the start of the POLYM treatment process. As a result, ACMA members report that catalyzed scrap resin drums even with pressure relief values have exploded in the past when the drum lids were secured on catalyzed scrap resins with rings tightly bolted.

The increased risk of explosion for scrap resin that is catalyzed was specifically noted by the Ohio Environmental Protection Agency (Ohio EPA) in a regulatory guidance discussion of POLYM treatment issued in 2004.[15] ACMA would expect that the increased risk of container explosion with a secured lid or cover is the direct opposite of the intent of the plain language of 40 CFR §265.173 which states a hazardous waste container is not to be "*handled, or stored in a manner which may rupture the container or cause it to leak.*"

Third, ACMA believes the strict application of container closure guidance as provided by USEPA requires that a generator's container status is limited to storage (i.e., 90-day accumulation). However, scrap resin with catalyst is undergoing generator POLYM treatment while present, as required, in an onsite 90-day accumulation area or initial satellite area.

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[13] See RCRA Online Number: 14826, Title: CLOSED CONTAINER GUIDANCE: QUESTIONS AND ANSWERS Document Date: 2011-11-03 at https://rcrapublic.epa.gov/rcraonline/

[14] USEPA Memorandum "Guidance on 40 CFR 264.JI73(a) and 265.173(a): Closed Containers" From: Robert Materials Dellinger, Recovery Director and Waste Management Division, To: RCRA Division Directors Regions 1 - 1 0, dated December 3, 2009, p. 82.

[15] Ohio EPA "Ohio Hazardous Waste Notifier", Spring 2004. https://epa.ohio.gov/portals/32/pdf/Notifierspring04.pdf

As discussed by the Indiana Department of Environmental Management (IDEM) in a current policy guidance document on closed containers, "*almost any type of treatment in containers requires a means to vent heat or pressure. It is IDEM's position that the closed container provision was intended to apply to containers in storage and/or being accumulated, and was not meant to strictly apply to treatment in containers*."[16]

Furthermore, IDEM has stated in guidance on POLYM treatment that:

> *The word "closed," as applied to a container in which polymerization is initiated, should be interpreted as meaning "covered;" that is, no container in which an exothermic reaction is taking place should have its cover firmly attached because of the possibility that the reaction could cause a rupture of the drum or a worse, unforeseen event. Also, a loose-fitting cover will allow air to enter the container; if the container is void of air during the reaction and air is suddenly introduced when a tight-fitting cover is removed, a "backflash" reaction could occur, injuring employees and/or damaging property*.[17]

Finally, ACMA acknowledges that the Subpart CC Container Level 1 standards will apply to containers undergoing onsite generator POLYM treatment. However, these standards only require the cover and closure devices to "*form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container*."[18]

Furthermore, Subpart CC provides that the cover may be a separate cover installed on the container such as a manufactured lid or even recycled flat sheet of scrap molded plastic as no visible holes or gaps were present. ACMA's believes the Subpart CC Container Level 1 standards do <u>not</u> require the cover or lid to be bolted or otherwise be secured to the container to eliminate the potential for a liquid spill. This regulatory interpretation would also be consistent with IDEM, Ohio EPA and selected other state environmental agency guidance. USEPA's federal regulatory confirmation of this important compliance aspect that is directly related to the technical performance of POLYM treatment in containers is critical to the continued use and expansion of POLYM by the composites industry.

ACMA is requesting USEPA to issue guidance that generators of scrap resin containing catalyst in drums or other containers 26 gallons or larger capacity are not required to securely affix a drum ring or use another mechanism to secure a cover or lid on the container during onsite accumulation specifically because of the POLYM treatment process, but rather that the drum closures must meet a no visible openings *standard.*

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[16] IDEM Nonrule Policy Document, Regulatory Status of "Closed" Containers" March 31, 2014. See https://www.in.gov/idem/files/nrpd_waste-0022.pdf

[17] IDEM "Compliance Manual for Indiana's Fiber Reinforced Plastics Manufacturers" dated January 2001, p. 82. See https://www.in.gov/idem/ctap/files/ctap_fiber_manual.pdf

[18] 40 CFR §265.1087(c) Standards: Containers.

ACMA greatly appreciates USEPA's attention to this critical matter for our members and the composites industry sector. We believe the failure of USEPA to act on this request will result in unnecessary environmental regulatory burdens for companies in the composites sector that are a high financial cost and economic burden. More importantly, we believe these environmental regulatory burdens result in no corresponding improvement in the environment.

Immediate technical questions may be directed to Lance Traves, Labyrinth Management Group, Inc., at L.Traves@LMGweb.com or (330) 764-4825. Other communications may be directed to John Schweitzer, ACMA, at jschweitzer@acmanet.org or (734) 604 9095.

Respectfully submitted,

John Schweitzer
American Composites Manufacturers Association