

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1**

In the Matter of:

ISP Freetown Fine Chemicals Inc.

MAR000009605

Proceeding under Section 3008(a) of the  
Resource Conservation and Recovery Act,  
U.S.C. § 6928(a)

Docket No. RCRA-01-2018-0062

**RESPONDENT ISP'S REPLY IN SUPPORT OF  
MOTION FOR ACCELERATED DECISION**

Respondent ISP Freetown Fine Chemicals Inc. ("ISP") submits this Reply in support of its June 23, 2021 Motion for Accelerated Decision.

DATED: July 19, 2021

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## ARGUMENT

This Reply in support of ISP’s Motion for Accelerated Decision has a lot of ground to cover. Region 1 ignores the plain meaning of the words in the exemption provision at the center of this case, Section 261.4(c), and makes confused and contradictory assertions about distillation, which is the basic production concept at issue. But the Region also makes numerous key concessions: about conceptual issues, about the applicable legal tests, and about the facts. When the confusion is pared away, the law and facts all point in one direction.

### **I. REGION 1 REFUSES TO CONCEDE THE OBVIOUS COLLECTIVE MEANING OF “UNIT” BECAUSE THAT MEANING IS DISPOSITIVE.**

Region 1’s opposition to ISP’s motion for accelerated decision is a litany of responses to ISP’s arguments, but the Tribunal should take note that on the single most important issue – whether a “manufacturing process unit” can include a collective system of equipment, or whether it must be a singular piece of hardware – Region 1 doubles down on an argument that can only be characterized as indefensible, borderline preposterous. The fact that Region 1 must resort to this argument is a signal that this issue is one-sided in ISP’s favor.

Specifically, Region 1 argues again that *all* of the RCRA exemptions in Section 261.4(c) are “individual pieces of equipment,” Region 1 Opp., at 24-25, including “a tank, a vehicle, a vessel, a pipeline.” *Id.* There is no way to say this more plainly: *A vehicle is not an individual piece of equipment. A vessel – meaning a ship, not a container – is not an individual piece of equipment. Vehicles and vessels are obviously multicomponent systems of equipment, as are pipelines and – slightly less obviously – storage tanks.*<sup>1</sup> Region 1’s insistence on pressing the

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<sup>1</sup> As Region 1 points out, EPA itself conceives of tanks as “systems” under RCRA. Region 1 Opp., at 25, n.10. The RCRA regulations applicable to facilities like ISP address tanks under the rubric of “tank systems.” *See* 40 C.F.R. Parts 264, 265, Subpart J (“Tank Systems”). And EPA has clarified that entire tank “systems” are exempt under the exemption for “tanks” in Section 261.4(c). A “tank” is not an “individual piece of equipment” in Section 261.4(c) or in applicable RCRA rules more generally.

transparently false assertion that an oceangoing ship is no more multifaceted than a child's toy ship is highly telling. If there were a better argument than this, the Region would surely make it.

In fact, Region 1 concedes that EPA clarified nearly 35 years ago that the “vessel” exemption applies to an entire vessel, not just to particular pieces of equipment within the vessel, meaning that hazardous waste can be moved around within a vessel without regulation (*e.g.* from engine room equipment or a cargo hold to a separate onboard waste storage tank or container); the waste is not “generated” until removed from the vessel. *See* Region 1 Opp., at 25 n.11 (citation omitted). This concession makes it impossible to understand how Region 1 can insist that a “vessel” is a single piece of equipment – the Region knows better.<sup>2</sup>

The only explanation for Region 1's commitment to this facially untrue proposition is that Region 1 cannot concede this point without losing the case. If vessels, vehicles, pipelines, etc. are exempt from RCRA *as multicomponent systems*, then so are “manufacturing process units.” And there is no dispute in this case that a distillate receiver in general – and an ISP receiver in particular – is part of a single, collective, multicomponent manufacturing distillation system. Region 1's own exhibit excerpting a chemical engineering treatise says that “[t]he simplest form of batch distillation consists of a heated vessel (pot or boiler) [*e.g.* an ISP reactor], a condenser, and one or more receiving tanks.” *See* CX-26, at 111 (emphasis added). If a “manufacturing process unit” can be defined as a manufacturing *system*, the receivers at the ISP facility are indisputably part of such a system – Region 1's own favored treatise says that even the “simplest form” of distillation system includes them. And Region 1 does not ultimately dispute that product distillation at ISP could not occur without the receivers. *Infra*, § II.A.

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<sup>2</sup> Region 1 notes that the agency's rationale for concluding that an entire vessel is exempt was both (1) a straightforward application of the text of Section 261.4(c), and (2) partly based on the regulated community's reliance on that text for approximately six years. Region 1 Opp., at 25 n.11. Now, 35 years after the agency's clarification about the broad and literal scope of a RCRA exemption, the same rationales apply here all the more.

Region 1's other arguments in support of its interpretation of a "manufacturing process unit" as a singular piece of hardware are hardly more convincing.

For instance, the chemical engineering treatise that Region 1 itself put into evidence defines a "unit" as a multicomponent system. *See* ISP Mot., at 37 (citing Perry's, CX-26, at 58). In response, Region 1 argues that "this section" of Perry's "is concerned with 'Degrees of Freedom and Design Variables,' strictly for purposes of design calculations," such that the treatise's definition is irrelevant. Region 1 Opp., at 27. But the Region's 118-page excerpt of Perry's is entitled simply "Distillation," and "unit" is not defined differently elsewhere in those pages. *See* CX-26. The Perry's definition of "unit" is also consistent with the Webster's definition of "unit" that EPA successfully pressed in federal court in *Amoco Oil*; *see infra*. Region 1 never explains why a definition relevant to manufacturing "design calculations" in an engineering treatise would not also be useful in defining a "manufacturing process unit."

Similarly, Region 1 argues that a "manufacturing process unit" must necessarily be a single piece of equipment because EPA's preamble to Section 261.4(c) gave examples including "distillation columns, flotation units, and discharge trays of screens," and these examples are "individual pieces of equipment." *See* Region 1 Opp., at 24-25.<sup>3</sup> But Region 1's own expert witness belies this assertion. The Region cites to the supplemental affidavit of Kevin Schanilec, who asserts that "[t]hese devices generally are individual pieces of equipment[.]" Schanilec Supp. Aff., ¶ 13 (emphasis added). While ISP disputes that these types of equipment are, in fact, generally individual pieces of equipment, this dispute is not material, because Mr. Schanilec's

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<sup>3</sup> Region 1 also asserts that when EPA identified "distillation units" as an example of a manufacturing process unit, the agency "used this phrase... merely as a synonym for 'distillation column.'" Region 1 Opp., at 9. It is notable that Region 1 is reduced to arguing that a particular word actually means an entirely different word. For the record, this claim is demonstrably untrue; Region 1 even cites EPA guidance using the two words in opposition to each other: "distillation column or unit," Region 1 Opp., at 9-10 (quotation omitted) (emphasis added). EPA understands that there is a difference between a distillation "column" and "unit."

own words, on their own, powerfully support ISP's argument. If "distillation columns, flotation units, and discharge trays of screens" are only *generally* "individual pieces of equipment," then Mr. Schanilec is testifying that they are *not always* "individual pieces of equipment"; they are sometimes collective or systemic in nature. And though the difference between *generally* and *always* may be small, it is decisive. The existence of even a few distillation columns, flotation units, or discharge trays of screens that are multicomponent in nature – and yet are nevertheless "manufacturing process units," by definition – proves that a "manufacturing process unit" can and does include multicomponent systems. And if so, Region 1's theory of the case is wrong.

The weakness of Region 1's position that a manufacturing process unit can only be an "individual piece of hardware" is also apparent in what the Region has ignored in ISP's motion. ISP made two central arguments about why a "manufacturing process unit" can be collective, not necessarily singular, that Region 1 has conspicuously not addressed and therefore conceded.

First, ISP explained that Section 261.4(c) itself uses the word "unit" to refer back to *all* of the exemptions, including indisputably collective equipment systems like vehicles and vessels, such that the word "unit" in this context – including in the phrase "manufacturing process unit" in the same sentence – must have a meaning that encompasses collective systems. *See* ISP Mot., at 32-33. Second, ISP pointed to a federal case in which *EPA itself* successfully argued that a collection of thermal and catalytic reactors was a single, collective, multicomponent "process unit," including by reference to the dictionary definition of "unit." *See id.*, at 37 (citing *United States v. Amoco Oil Co.*, 64 F. Supp. 2d 801, 804-05 (N.D. Ind. 1999)). Region 1 does not address or refute either of these arguments, presumably because they are irrefutable.

## II. REGION 1 MAKES TWO CONCESSIONS ABOUT THE APPLICABLE LEGAL TEST THAT ARE EACH FATAL TO THE REGION'S CASE.

Region 1's Opposition concedes points about the *General Motors* test<sup>4</sup> and the Region's own preferred "locus" test that are each sufficient to merit accelerated decision in ISP's favor.

### A. Region 1's interpretation of *General Motors* is even more favorable to ISP than ISP's own interpretation.

First – and remarkably – Region 1 not only agrees with ISP's citation to the legal test in *General Motors*, but proposes a version of that test that is *more favorable to ISP* than even ISP's own interpretation. ISP has repeatedly cited *General Motors* for the proposition that the "manufacturing process unit" exemption applies to an "integral part" of a "production system" that is used to "create a product," but not downstream of production, where wastes have become a "waste disposal problem." *See General Motors*, 2006 WL 3406333, at \*32-33. Region 1 recognizes this test in *General Motors*, but asserts that the test only evaluates whether equipment and tanks are "'part of the production system' used to 'create a product,'" rather than an "integral part." *See* Region 1 Opp., at 20 ("The test for such analysis set forth in *General Motors* was whether such equipment and tanks were 'part of the production system' used to 'create a product.' The test did not include the term 'integral parts' (of a 'production system') as Respondent suggests.") (quoting *General Motors*, at 41-44) (emphasis added). This is a lower bar for ISP's receivers to clear than even ISP proposed. And Region 1 emphasizes this concession at the end of its discussion of *General Motors*, asserting that ISP's receivers are not exempt "because they are not operated to produce a product" – an assertion that the test is merely whether equipment is "operated to produce a product," *i.e.*, whether it is part of a production system. Region 1 Opp., at 21.

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<sup>4</sup> *In re General Motors Automotive-North America*, No. RCRA-05-2004-0001, 2006 WL 3406333 (March 30, 2006) ("*General Motors*"), *rev'd in part*, 14 E.A.D. 1 (EAB 2008).



This is a highly significant concession that may simplify this Tribunal’s job considerably. Notwithstanding Region 1’s conclusory, uncited assertion to the contrary, there is no actual dispute in this case that ISP’s distillate receivers are “part of the production system” at the ISP facility, used to create the relevant products: solvent-free chemicals for personal care and household products. Region 1’s concessions on this point are as airtight as a geometric proof:

- **The parties agree that distillation at ISP is a *production* process, used to create a product, not treat a waste.** See Schanilec Aff., ¶ 14 (“Each production process at issue involves the removal of solvents through distillation from the reactor vessel.”).
- **The parties agree that the receivers perform a unique function in the distillation process that the other distillation equipment cannot.** Schanilec Supp. Aff., ¶ 7 (“For the condenser to function, distillate must be removed or ‘cleared’ from the condenser”); Schanilec Aff., ¶ 24 (“reactors and condensers are not designed to accumulate unwanted and separated liquid solvent distillate”); *id.*, ¶ 33 (“Each of ISP’s series of equipment was designed to allow distillate to accumulate at times in the receiver tanks.”).
- **The parties agree that the receivers play other production-related roles in interrelation with the other distillation equipment.** Schanilec Supp. Aff., ¶ 9 (“pressure control is effected by ISP personnel and/or automatic controls, for example by throttling and opening valves between the reactor, condenser and receiver tanks... opening the valves between the VRU system and the reactors, condensers and/or receiver tanks... or by opening and closing the valves between the vacuum system and the reactors, condensers and/or receiver tanks”); *id.*, ¶ 10 (“ISP uses a radar device to monitor the liquid level in the receiver tanks, by which the amount of distillate can be monitored.”); *id.*, ¶ 12 (“ISP uses the receiver tanks at times as an expansion volume to facilitate addition of ingredients to the reactors”).

In short, ISP’s receivers are *unquestionably* “part of the production system” at ISP, “operated to produce a product.” Region 1 does not dispute: (1) that relevant ISP products do not contain solvents; (2) that to remove solvents, ISP distills these products; (3) that ISP distillate receivers are a part of the distillation process in a variety of ways; (4) that without the receivers, product distillation at ISP would not occur, even momentarily; and (5) that until distillation is complete, ISP has not produced these products. It is simply not debatable that ISP’s receivers satisfy the *General Motors* test.

Region 1 attempts to avoid the unavoidable by contending that ISP's distillate receivers fall on the "waste management" side of the *General Motors* test, downstream of production, where wastes have become a "waste disposal problem." See *General Motors*, at \*32-33. As explained above, this is not true even under Region 1's proffered facts; there is no dispute that without receivers, ISP could not produce a product. But the argument that receivers are used for "waste disposal" rather than production can also be dispelled with a simple thought experiment.

A "waste disposal problem" means the challenge and requirement of disposing wastes safely and legally. Whether a particular piece of equipment is part of a facility's "waste disposal problem" can be grasped by considering whether the equipment would be necessary in a world *without* "waste disposal problems" – a world, like ours a century ago, in which wastes could be disposed indiscriminately in the absence of safety and environmental requirements. The *General Motors* test means that equipment is part of a "manufacturing process unit" if it would be needed to produce a product even if safe and lawful waste disposal were not necessary. To take the facts of *General Motors* as an example: In the absence of laws, the "purge mixture" of paint-saturated solvents used to clean vehicle paint spray guns could simply be pumped away from the factory after use, into the environment, and the facility's "purge mixture" system for lawfully transferring, storing, and processing those spent solvents would be unnecessary. Even without that system, painted cars would still continue to roll off the assembly line, so the "purge mixture" system is part of waste management, not production. By contrast, the paint spray guns themselves are physically necessary to paint the cars, and would be necessary even in the absence of environmental law. Without the spray guns, there would be no painted cars in the first place. Accordingly, they are part of the production process, and are exempt from RCRA.

Here, even in a world where ISP’s wastes could be piped away into the environment instead of lawfully routed to hazardous waste accumulation tank S-535, the company could not produce its finished product without its distillate receivers. Without those receivers, the facility’s condensers – sealed in a closed-off, oxygen-free atmosphere with the rest of the distillation unit – could not clear themselves of distillate, as even Region 1’s expert agrees. “For the condenser to function, distillate must be removed or ‘cleared’ from the condenser[.]” Schanilec Supp. Aff., ¶ 7. “[T]he reactors and condensers [alone] are not designed to accumulate unwanted and separated liquid solvent distillate,” Schanilec Aff., ¶ 21; rather, ISP’s equipment “was designed to allow distillate to accumulate at times in the receiver tanks,” *id.*, ¶ 33 (emphasis added). And without receivers, distillation system pressure could not be fully controlled; distillate levels could not be monitored. *Supra*. Distillation simply could not take place, even for a moment, and ISP’s products would be as unfinished as unpainted cars. *Region 1 does not dispute this*.<sup>5</sup> This is simply not a close call; there is no dispute of fact to be tried.<sup>6</sup>

**B. Region 1 concedes that its “locus” test is wrong.**

Even while Region 1 recognizes the *General Motors* test in its opposition brief, the Region’s own motion for accelerated decision also presses a “locus” theory: that exempt equipment must be “the locus of manufacturing and hazardous waste generation,” such that

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<sup>5</sup> While Mr. Schanilec has ideas about how a different facility might set up a distillation process differently, the only question before this Tribunal is whether ISP’s distillate receivers, as they exist at the ISP facility, are “part of the production system” and are “operated to produce a product.” *Supra*.

<sup>6</sup> Region 1 also argues that the *General Motors* test involved “the purpose of GM’s business,” which was “to produce automobiles,” and that GM was “not in the business of manufacturing purge solvent.” Region 1 Opp., at 21 (quoting *General Motors*, at 42). Region 1 cites this language out of context, and the Region’s argument proves too much. No facility is “in the business” of manufacturing hazardous waste. The relevant question is only whether a given piece or system of equipment is “part of the production system.” The context of the Tribunal’s commentary about *General Motors*’ “business” was that if the “purge solvent” *had* been the GM facilities’ product, the “purge mixture” system might well have been “part of the production system,” rather than a “waste disposal problem.” This language does not change the analysis here that ISP’s receivers are part of its production system, regardless of whether solvent is ISP’s “product.”

“[t]he only way to properly determine if the terms of the MPU Exemption are met is to examine each individual tank, vessel, or other piece of equipment that is potentially exempt to determine if manufacturing and hazardous waste generation occurs therein.” Region 1 Mot., 29. Region 1 does not cite any authority for this proposed “locus” test, and it is entirely inconsistent with the *General Motors* test that Region 1 also acknowledges.<sup>7</sup> But the “locus” test is at the heart of Region 1’s argument, and the Region relies on it to argue (incorrectly) that ISP’s distillate receivers are not part of “manufacturing process units” because nothing allegedly definable as “manufacturing” literally occurs within the receivers themselves.

If there were any question about whether the “locus” test is appropriate, however, that question is put to rest by Region 1’s Opposition – and in particular, by the Region’s response to ISP’s argument about “discharge trays of screens,” one of EPA’s own explicit examples of a manufacturing process unit. ISP’s Motion argued that even if Region 1 were right that ISP’s distillate receivers are mere distillate storage tanks and nothing more, *they would still be exempt*, because even as mere passive receptacles for distillate in a distillation process, they would be conceptually identical to “discharge trays of screens,” which are also passive receptacles for separated materials in a screening process and nevertheless are explicitly exempt as “manufacturing process units.” ISP Mot., at 33-34. Region 1’s approach to this point about “discharge trays of screens” in its Opposition is twofold: First, the Region’s brief ignores ISP’s argument, thereby conceding it. Second, Region 1’s expert witness, Kevin Schanilec, clarifies in his supplemental affidavit that a “discharge tray of screens” is indeed merely a passive receptacle

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<sup>7</sup> Region 1 also asserts – in a particularly blatant inaccuracy – that this “locus” test is part of the text of manufacturing process unit exemption itself. *See* Region 1 Opp., at 8 (“the pivotal question before this Tribunal [is] whether the Receiver Tanks satisfy the regulatory criteria set out in the text of the MPU Exemption, which is whether both manufacturing and hazardous waste generation occur within the Tanks.”) (emphasis added). Needless to say at this point, these “criteria” are certainly *not* “set out in the text of the MPU Exemption.” *See* Section 261.4(c). This is a remarkable incorrect assertion for the Environmental Protection Agency to make in this Tribunal.

for screened or filtered material – often wastes – such that Mr. Schanilec notes that a discharge tray is also called a “collection trough.” Schanilec Supp. Aff., ¶ 13.c.

This remarkable label – “collection trough” – ratifies ISP’s point, and entire case, beyond question. If a manufacturing process unit explicitly includes a type of equipment that Region 1 itself calls a mere “collection trough” – indeed, a *waste* collection trough – then ISP’s receivers are exempt *even if they are no more than collection troughs*, as Region 1 contends. And it also means that a manufacturing process unit need not be the “locus” of manufacturing – *i.e.*, the “locus” test is entirely wrong – because a mere waste collection trough is indisputably not a “locus” of manufacturing, yet at least one type of waste collection trough, conceptually identical to Region 1’s own idea of a receiver, is explicitly exempt as a manufacturing process unit. This single point is sufficient to demolish Region 1’s entire case, such as it is.

### **III. REGION 1’S DISCUSSION OF DISTILLATION IS INCOHERENT, BUT DOES NOT CONTEST THE POINT THAT DISTILLATION REQUIRES RECEIVERS.**

Region 1’s arguments about the nature and mechanics of distillation are both wrong and mutually inconsistent, and it is notable that Region 1 cannot articulate a coherent definition of the simple engineering process at the heart of this case. It is also clear, however, that once the Region’s points about the nature of distillation are untangled, ISP’s fundamental point – that distillation requires receivers – remains substantively uncontested.

The parties agree that product distillation is fundamentally a separation process, like filtering or screening. Region 1, however, claims that the requisite separation is achieved – and that “distillation” occurs – even if product components separate only momentarily, and are immediately recombined. Specifically, Region 1 claims that the “separation” in ISP’s distillation process, and therefore “distillation” itself, takes place entirely within the reactor. *See, e.g.*, Region 1 Opp., at 13 (asserting that the only vessel “in which the separation/redistribution of the

feed streams occurs is the reactor”); Schanilec Aff., at ¶ 24 (“Distillation” is “the separation of one portion of material from an original quantity” and “the desired separation... occurs in the reactors”); Schanilec Supp. Aff., at ¶ 5 (“separation is achieved by the redistribution of the components between the liquid and vapor phase... within the reactor”).

But this concept of distillation does not hold together under examination. In this view, “distillation” is achieved even if the entire process occurs entirely within a single tank (like the reactor), and all the resulting components – distilled product and distillate – remain in that tank. But a “separation” in which all components remain together in a single tank is no separation at all. Under this view, any cook who boils soup in a covered pot is “distilling” the soup.<sup>8</sup> But boiling and distillation are two different things. Distillation is an actual, permanent separation of components, not the mere nominal separation of molecules inside a boiling pot. And *actual* separation of components cannot occur in ISP’s reactors alone.<sup>9</sup>

Moreover, the Region’s view is not only incorrect, it is inconsistent with other, equally wrong pronouncements on the same subject by the Region and its expert witness. In other portions of its briefing, Region 1 asserts that separation *starts* in the reactor but concludes in the condenser.<sup>10</sup> *See, e.g.*, Region 1 Opp., at 30 (“The separation aspect of distillation is

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<sup>8</sup> Similarly, under Region 1’s view, virtually all tanks would qualify as distillation units, given what Region 1 has elsewhere described as a “constant state of fluctuation” between the liquid and vapor phases of material in every tank. *See* Rebuttal Prehearing Exchange, at 8; *see also* Region 1 Opp., at 34 n.13 (“all tanks, including waste storage tanks, can theoretically hold material that is susceptible to condensation or evaporation, or both”).

<sup>9</sup> This is also why Region 1’s discussion of the definition of “distillation operation” in RCRA Subpart AA is flawed. *See* Region 1 Opp., at 12-13 (citing 40 C.F.R. § 264.1031). Region 1 treats the words “separation” and “redistribution” in this definition as synonyms, defining “redistribution” – without citation – as “dividing up.” *Id.* But this is not what “redistribution” means, and it is not simply another word for “separation” in Subpart AA. Redistribution means “to spread to other areas.” *See* [www.merriam-webster.com/dictionary/redistribute](http://www.merriam-webster.com/dictionary/redistribute) (last viewed July 14, 2021). Components of a product cannot be “redistributed” entirely within the reactor itself, any more than soup is “redistributed” by boiling it in a covered pot. The definition of “distillation operation” in Subpart AA contemplates actual, permanent separation of components by redistribution, not the mere temporary, nominal separation of molecules. Such distillation requires separate chambers to achieve “redistribution” – *i.e.*, receivers.

<sup>10</sup> Region 1’s conception of condensers is equally incoherent. The Region asserts that condensers are exempt from RCRA regulation because “manufacturing occurs in... condensers,” Region 1 Rebuttal Prehearing Exchange,

concluded... once the vapors are condensed.”); Schanilec Aff., ¶ 25 (“Liquid solvent distillate is formed in the condensers, which completes the process of distillation. In other words, distillation occurs in the reactors and condensers, and the separation is complete prior to the liquid distillate being routed or accumulated elsewhere.”). But this conception of distillation makes no more sense than the first. Under this alternate theory, there would be “separation” and “distillation” even where vapors from a reactor are sent to a condenser for condensation into liquids and then those liquids are immediately returned to the reactor in a reflux loop. The fundamental problem is the same: Whether solvent vapor molecules remain entirely within the reactor or leave for a fleeting moment before immediate return, there is no “separation” in any meaningful sense of the word. If “distillation” could include only the nominal, temporary separation and recombination of molecules, without the actual permanent division of components, then distillation would be an entirely theoretical construct rather the actual, real concept that everyone understands. River water could simply be boiled and then accurately labeled “distilled” water; plain fermented alcohol could be boiled and labeled a “distilled” spirit like whiskey. This is not what “distilled” means.

Region 1 is twisting the plain meaning of words to avoid admitting the obvious.

Distillation is the *permanent* separation of components, not the nominal separation of molecules in a boiling pot. This permanent separation is why the Region 1’s own chemical engineering treatise says that there must be *three* irreducible components in batch distillation, not one or two,

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at 6, and that “manufacturing” is the “transformation of raw materials into substantively different products.” Region 1 Opp., at 35. But Region 1 also asserts that the sole job of a condenser is to convert vapor into liquid solvent, which is a waste, not an ISP product – *i.e.*, to “generate” waste, including hazardous waste. *See* Region 1 Mot., at 21, 33, 37. Both cannot simultaneously be true; the condensers cannot both be “manufacturing” and merely generating wastes. This apparent contradiction, however, is merely an artifact of Region 1’s various misconceptions about the law in this case. The dilemma is solved by recognizing that the relevant level of analysis is the entire distillation *unit* – reactor, condenser, receiver – not each individual piece of equipment. The distillation *unit* is plainly engaged in manufacturing under any relevant definition. Notably, this type of confusion will arise in infinite variations in this Tribunal if Region 1 prevails with its “locus” theory.

and that one of those components is a receiver. CX-26, at 111 (“The simplest form of batch distillation consists of a heated vessel (pot or boiler), a condenser, and one or more receiving tanks.”). The logic underlying this definition is self-evident: A “distillation” in which all the “separation” happens in one tank, or in a feedback loop from a tank to a condenser and back, is not a distillation at all; it is just boiling. A receiver is physically necessary to continuously clear the condenser and enable real distillation, meaning the *permanent* separation of a product into its components. Region 1’s arguments to the contrary do not stand up to even cursory scrutiny.

This flawed portrait of the nature of distillation leads to much confusion in Region 1’s opposition brief, including gross mischaracterizations of ISP’s basic arguments:

When it claims that “distillation physically cannot be done without a receiver” and that a distillation operation that does not include Receiver Tanks “is not capable of distillation” (R-Motion p. 24) Respondent cannot be asserting that the act of distillation and condensation, that is, the separation of materials and the condensing of vapors back to liquid, cannot occur in the absence of a receiver. Respondent must mean simply that there must *physically* be a location (a piece of equipment) that is dedicated to collecting and storing the liquid distillate. That the act of distillation does not require nor depend upon the presence of a collection vessel such as a receiver tank is a well-understood and indisputable chemical engineering principle. Affidavit of Kevin Schanilec, C-Motion Att. 2 (“Schanilec Aff.”) ¶ 24.

Region 1 Opp., at 31 (emphasis in original). Yes, ISP *is* asserting that the “act of distillation” requires a receiver, just as Region 1’s own treatise asserts that distillation requires a receiver.

Without a receiver, distillation – the actual, permanent separation of components, not the illusory, fleeting separation of molecules – could not occur. The “act of distillation” *does* require the “presence of a collection vessel,” otherwise it is just boiling. And there is no “well-



understood and indisputable chemical engineering principle” to the contrary, neither in Paragraph 24 of Mr. Schanilec’s affidavit nor anywhere else.<sup>11</sup>

Likewise, ISP’s argument in this case is not – as Region 1 mischaracterizes it – that receivers are necessary because “solvent management must occur somewhere so that the used solvent does not leak out uncontained or backup into the condensers and reactors.” *Id.*, at 32. This statement is a combination of mislabeling and false assumptions. But it is also a subtle admission of ISP’s key point, and is worth unpacking for that reason.

The mislabeling in Region 1’s statement is the term “solvent management.” Any mere storage tank can manage solvents – a receiver’s particular function, by contrast, is to clear a condenser so that distillation process may proceed.<sup>12</sup> The false assumption in the Region’s statement is that in the absence of a receiver, condensed liquids would simply “leak out uncontained” from a condenser. Region 1’s expert witness makes no such claim, and Region 1 is asserting it without any support whatsoever. And it is baseless: ISP’s distillation units are sealed

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<sup>11</sup> Region 1 argues that because sometimes condensed liquids are returned or “refluxed” from condenser to reactor during ISP’s processes, “it is incontrovertible that collection of the distillates in the [receivers] is not necessary for distillation to occur,” and that receivers do not serve a manufacturing purpose while that reflux is ongoing. *Id.*, at 31-32 (“during reflux the relevant valves to [the receivers] are closed”). This is only true if “distillation” is defined wrongly, as described above. This analysis also leaves out the fact that reflux, when it occurs, is merely an intermediate step in ISP’s production process. ISP’s distillation process is not simply boiling its products, in an infinite loop of material from reactor to condenser and back. Eventually, valves are opened, receivers do their jobs, and actual distillation is achieved.

<sup>12</sup> Region 1 repeatedly claims that the “primary function” of the receivers is “the collection of used liquid solvents.” *See, e.g.*, Region 1 Opp., at 8 n.1; *see also id.* at 24, 29. But even the Region’s own expert witness does not describe the receivers’ function quite that way; rather, Mr. Schanilec asserts that “[t]he primary function of the receiver tanks is to receive and temporarily hold condensed liquid solvents that flow from the condensers,” Schanilec Aff., ¶ 20, because “the reactors and condensers are not designed to accumulate unwanted and separated liquid solvent distillate.” *Id.*, ¶ 21. And Region 1 recognizes that “distillate must flow out of the condenser to another location in order to keep the flow of material moving out of the reactor... and into the condenser (and then out of the condenser to make room for the material flowing in).” Region 1 Opp., at 30 (citing Schanilec Supp. Aff., ¶ 7). Accordingly, Region 1 does clearly recognize the true purpose of the receivers: to “continuously ‘clear’ the condenser of liquids,” without which “a condenser would quickly and inevitably cease functioning,” halting the distillation process. LeBlanc Decl., ¶ 17.

from outside oxygen, so liquids cannot “leak out”; rather, if not cleared, the condensers fill with liquid and stop functioning. LeBlanc Decl., ¶ 17.

This latter point is also Region 1’s admission. It *is* true that in the absence of receivers, liquid from condensers will “backup into the condensers” and halt distillation, but this is exactly why a receiver is a necessary component of a distillation unit.<sup>13</sup> *Id.* This is the purpose that receivers serve 100 percent of the time at ISP’s facility – not “sometimes,” Region 1 Opp., at 32, or “40%” of the time, *id.* at 29, 25, but all the time. Without the receivers, distillation could never happen at the ISP facility, not even momentarily. This is a plain fact, and it is substantively uncontested by Region 1’s expert witness. Region 1 only avoids confronting it by presenting a highly distorted version of distillation itself.

#### **IV. REGION 1 CONCEDES KEY FACTS ABOUT ISP’S RECEIVERS.**

Region 1 concedes what is arguably the single most important fact in this case, namely that “distillate must flow out of the condenser to another location in order to keep the flow of material moving out of the reactor... and into the condenser (and then out of the condenser to make room for the material flowing in).” Region 1 Opp., at 30 (citing Schanilec Supp. Aff., ¶ 7) (emphasis added). This is ISP’s primary factual point; this is why receivers are a necessary and integral part of the distillation process.

Having made this dispositive concession, Region 1 suggests that a different kind of distillation does not require receivers, but the Region’s argument is both irrelevant and wrong on its own terms. It is irrelevant because the Region admits that it cannot claim that “this [alternative] engineering design could take the place of the Receiver Tanks at Respondent’s

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<sup>13</sup> To avoid confusion, this is not the “backup” of a waste management system that can eventually have the secondary effect of impacting production, as in *General Motors, infra*, at \*32. An overflowing condenser is dysfunctional production equipment, like an inoperable paint spray gun, that prevents production as a primary effect. This distinction is teased out further in the thought experiment described *supra* at § II.A.

facility,” and another facility’s manufacturing process does not govern this case. *Id.*; Schanilec Supp. Aff. ¶ 8 (discussing “wet-process phosphoric acid” manufacturing). But the Region is also wrong on its own terms because even Mr. Schanilec’s proposed alternative design admittedly uses the equivalent of a receiver: “Condensate flows out the bottom of the condenser and through the barometric leg (a vertical pipe), momentarily flows through a ‘hot well’ or ‘seal tank’ (analogous to a discharge tray) which maintains the air-tight seal, and then could either be accumulated and managed as waste[.]” Schanilec Supp. Aff., at ¶ 8 (emphasis added). A piece of equipment “analogous to a discharge tray” that “maintains the-air-tight seal” essentially just describes a receiver and its function, at least in the Region’s narrow view of that function. Mr. Schanilec’s description also clearly echoes a “discharge tray of a screen,” which Mr. Schanilec himself describes as a “collection trough,” and which is explicitly exempt from RCRA as an example of a “manufacturing process unit.” *Id.*, ¶ 13.c; *see also supra*. Region 1 hardly proves that a receiver is not part of a manufacturing process unit by saying that the alternative to a receiver is “analogous to” an explicit example of manufacturing process unit. This merely reinforces ISP’s point that a receiver – or something conceptually identical – is necessary to the distillation process.

Region 1 makes other, similar concessions. As ISP explained at length in its Motion, the receivers perform a variety of critical functions in the facility’s manufacturing process beyond the core function of continuously clearing the condenser. ISP Mot., at § II.B. Region 1 does not dispute that the receivers, in fact, perform all of these vital functions:

**Pressure control:** Region 1 says that it “does not disagree” with the fact that “the Receiver Tanks serve a pressure control role in [ISP’s] efforts to maintain desired conditions within the closed system,” *i.e.*, the reactor, condenser, receiver, and their connecting equipment.

Region 1 Opp., at 32. This is clearly an essential manufacturing function. Region 1 attempts to draw a distinction that it is not the “[receiver] tanks themselves” but rather ancillary tank equipment that serves this function, but this distinction does not withstand the slightest scrutiny. Tanks without ancillary equipment serve no function at all; even simple storage requires valves and pipes to allow materials in and out. Moreover, the Region seems to be suggesting that a receiver’s ancillary equipment could be part of a manufacturing process unit, and upstream equipment like a condenser could be part of it, but that the “unit” could somehow skip and omit the actual receiver tank in between the condenser and the receiver’s equipment. This conception of manufacturing process units is not tenable.

**Monitoring production:** Region 1 acknowledges that ISP “monitors the level of used solvent collected in the Tanks,” and that such monitoring “can provide information as to the status of production in the reactor.” Region 1 Opp., at 33. Indeed, as ISP has noted – and Region 1 has not disputed – this monitoring of the receivers is essential in making a variety of key production decisions. ISP Mot., at 42-44. The Region notes that “[a]nother common engineering option for measuring tank liquid volumes is through the use of flow meters,” Region 1 Opp., at 33, but this is irrelevant. ISP measures volume in the receivers using precision radar, and has every right to make such a production process design choice. Region 1 does not prove that ISP’s receivers are outside ISP’s production process by pointing out that alternative designs exist for various production parameters.

**Handling “bumped” material:** Region 1 acknowledges that the potential for “bumping” of valuable raw materials and/or products from the reactor to the receiver is a generally recognized issue in distillation processes. Schanilec Aff., ¶ 31 (“[i]n distillation processes generally, there is the potential for ‘bumping’”); *see also* CX-26, at 111 (discussing

steps that may be taken during distillation to minimize potential for bumping). Region 1 also does not dispute that bumped materials that collect in a receiver have the potential to be returned to the reactor for reprocessing. ISP Mot., at 45. Indeed, the Region admits that, to the extent the receivers collect bumped materials, they are “function[ing] in a manufacturing capacity.” Region 1 Opp., at 34. But the Region suggests that because bumping is at most infrequent, this manufacturing function can be ignored; it is “outweigh[ed]” by other functions. *Id.*

The flaw in Region 1’s logic is that *all* engineering design must account for remote outcomes or risks. The Region’s argument is tantamount to a claim that smoke detectors serve no purpose in a building because fires are infrequent, or that flotation devices in airplane seats serve no purpose because water crashes are infrequent. But it is the potential for these events, not their frequency, that drives these engineering designs, which are no less important for being rarely needed. Region 1 surely agrees; it is the same principle behind the rules requiring secondary containment for certain types of tanks. The design of a distillation system to manage bumping is driven by the potential for bumping, not the frequency of bumping. In ISP’s distillation system, that design imperative is served by the receivers, as Region 1 concedes.

**Producing distillate:** Region 1 concedes that at least some manufacturing occurs in the receivers. In particular, it has stated that “manufacturing occurs in... condensers” because solvent vapor is condensed there, and that a small amount of condensation “could potentially occur in the Receiver Tanks” as well. Rebuttal Exchange at 6; Region 1 Mot., at 37 n.25. Region 1 argues that this manufacturing within the receivers does not make the tanks manufacturing process units because the amount of manufacturing is “minute” and unintentional. Region 1 Opp., at 34-35. Putting aside the question of ISP’s intent, which Region 1 does not know, Region 1 offers no authority for its argument that a small amount of manufacturing that is

ancillary to the primary purpose of a piece of equipment cannot nevertheless contribute to satisfying the *General Motors* test. Even if minor, the receivers' function as secondary condensers is part of why the receivers are "part of the production system" at the ISP facility, used to "create a product." *Id.*, \*32-33. Mere waste tanks do not serve as secondary condensers.

**Loading raw materials:** Region 1 concedes that ISP uses residual pressure in two of the four receivers at issue to "pull" raw materials into the reactor for processing. Region 1 Opp., at 35-36. The Region also does not dispute that the other two receivers could be used in the same way. ISP Mot., at 47. But Region 1 argues that these facts "cannot convert... the Receiver Tanks... into serving a manufacturing function." Region 1 Opp., at 36. This is an argument without content. Nothing has been "converted"; this particular job is simply part of the receivers' function. Region 1 offers no actual reason why a piece of equipment helping to load raw materials into a reactor is not playing a manufacturing role. Indeed this is one of the most fundamental manufacturing functions, without which manufacturing could not occur. Region 1 correctly notes that ISP also uses different methods to load other raw materials into the reactors, but this is irrelevant; when a receiver is used as part of this essential step, it is clearly part of the manufacturing process.

## **V. REGION 1 ATTACKS TREES BUT IGNORES THE VAST FOREST.**

A final point, to put all these arguments in context. The conclusion that ISP's receivers are exempt from regulation as part of "manufacturing process units" under 40 C.F.R. § 261.4(c) is not a matter of one or two good arguments. Rather, it is supported by a dense web of interconnecting arguments, knit together from many different places in the law. Region 1's approach in this briefing has been to try to snip at many of these threads – though not all, as noted above – and ISP's response has generally been to explain why each thread holds against the Region's efforts. But the Tribunal should not lose sight of the bigger picture: Region 1 has not offered any web of its own – *i.e.*, any

coherent theory of this case that demonstrates consistency, explanatory power, or a workable enforcement theory beyond whatever point is immediately at issue on a given page of the Region's brief. Region 1 offers a series of proposed exceptions, distinctions, justifications. But the most compelling factor in ISP's favor is the sheer *collective* weight of the law on one side in this case.

Specifically, Region 1 attempts an explanation for why the definition of "distillation unit" in Clean Air Act regulations is inapplicable, and for why EPA's explanation that "distillation units" include receivers in a RCRA Subpart AA/BB rulemaking is inapplicable, and for why Subpart AA's definition of "distillation operation" is inapplicable, and for why the definitions of many other types of "manufacturing process units" in NESHAP regulations are inapplicable, and for why definitions of "unit" and "distillation" in Perry's – its own chemical engineering treatise – are inapplicable, and for why literally dozens of EPA definitions of the term "process unit" are inapplicable. The Region proposes a new and unworkable test for the application of the "manufacturing process unit" exemption, suggesting that this Tribunal's own existing test in *General Motors* is inapplicable. Region 1 has an answer, however indefensible, for why the agency's own list of comparable multicomponent exemptions in Section 261.4(c) itself – vessels, vehicles, etc. – are inapplicable. But Region 1 cannot explain, and does not try to explain, how *all* of these authorities can be *simultaneously* inapplicable. In other words: How could a thoughtful agency like EPA promulgate a "manufacturing process unit" exemption in tension with *so many* of its other principles and pronouncements, without any explanation? The answer is that it didn't.

This is the basis for ISP's invocation of the doctrine of *in pari materia*, which is the law's recognition that an agency like EPA, when promulgating regulations, generally acts carefully and without self-contradiction. Region 1's discussion of *in pari materia* attempts to claim yet more exceptions and distinctions, arguing that the purpose of RCRA exemptions differs from the purpose of the Clean Air Act, and that the same words can have different interpretations in different contexts. These points may be more or less true, depending on context, but they are irrelevant here. The *in*

*pari materia* canon recognizes that a precise agency like EPA would not define a narrow, technical system of equipment like a “distillation unit” in diametrically opposite ways in sister environmental statutes and regulations, without at least noting a clarification; the agency would not define “process unit” thirty times under the Clean Air Act in a way that facially conflicts with the meaning of a manufacturing “process unit” under RCRA. Both the Clean Air Act and RCRA exist for the purpose of regulating leaks and emissions from industrial equipment, including in many cases the same equipment. The agency’s technical definitions of that equipment and related concepts will be consistent because EPA is good at its job. And the doctrine of *in pari materia* means that this Tribunal can and should assume so when it interprets the agency’s words.

More broadly, the principle of *in pari materia* means that it is simply unrealistic that a competent agency like EPA could have contradicted itself as comprehensively, across the scope of its regulatory work, as would be necessary for Region 1’s theory of this case to be correct. Region 1’s argument that the agency *has* acted so incoherently is a profound and undeserved self-criticism.

In conclusion, the parties’ voluminous briefing on dueling motions for accelerated decision has made clear that the structure of this dispute is not symmetrical. In bringing this action, Region 1 has staked out a highly aggressive, longshot position, because it can win only if *all* of the following are simultaneously true:

- “Distillation” is indistinguishable from mere boiling; *and*
- EPA’s definition of a “distillation unit” in Clean Air Act regulations is irrelevant to the definition of a “distillation unit” in RCRA, even though many distillation units are governed by both laws; *and*
- EPA’s explanation of distillation units in its RCRA “process vent” rule is irrelevant to the definition of a “distillation unit” in RCRA; *and*
- EPA’s definition of “process unit” across *thirty* Clean Air Act regulatory provisions is irrelevant to the meaning of “manufacturing process unit” in RCRA; *and*
- EPA’s own position in federal court that a single “process unit” includes multiple reactors is irrelevant in this case; *and*



- The definitions of “distillation” and “unit” in EPA’s own chemical engineering treatise are irrelevant in this case; *and*
- EPA’s definition of “chemical manufacturing process units” and other specialized “manufacturing process units” in Clean Air Act regulations are irrelevant to the meaning of a “manufacturing process unit” in RCRA; *and*
- EPA’s definition of “distillation operation” in RCRA uses the term “redistribution” to mean the redistribution of components solely within a single tank; *and*
- Vehicles, vessels, and pipelines are all singular pieces of hardware, not multicomponent equipment systems; *and*
- Distillate receivers are less integral to manufacturing than “discharge trays of screens,” which Region 1 calls “collection troughs” for waste; *and*
- In the absence of waste management laws, ISP could simply disconnect its distillate receivers and still produce its products.

If all of these are true, Region 1 can arguably win this case. If even one of them is not true, Region 1 should lose. If *none* of them are true – as this briefing has demonstrated – this Tribunal should quickly grant ISP’s Motion and dispose of the remainder of this case without a hearing.

DATED: July 19, 2021

Respectfully submitted,

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