

# Potential Approaches for the Chemical Data Reporting (CDR) Inorganic Byproducts Negotiated Rulemaking Committee

## Background

The Substantive Workgroup, established at the June 8-9, 2017 Committee meeting, identified five approaches for addressing the Committee's mandate. The Substantive Workgroup did not strive for consensus on the approaches. Instead, they discussed questions and concerns about the five approaches so that the leads could address and refine them.

The goals for the August 16-17, 2017 meeting are to: 1) discuss potential approaches identified by the Committee at its June meeting and developed by members of the Substantive Workgroup; 2) identify strengths and concerns about approaches and ways for addressing concerns; 3) determine which approaches or combination of approaches to explore further; and 4) further explore or clarify any refinements that need to be addressed before the September meeting. **Members are expected to review the five identified approaches closely before the meeting and be prepared to share clarification questions, and concerns/considerations.**

## Potential Approaches

**A - Simplifying Reporting (Lead – Susan Sharkey, EPA):** Simplifying reporting by removing need to consider exemptions, enabling reporting in categories, and reporting reduced processing and use information, for inorganic byproducts that are recycled, reused, or reprocessed

**B - Expand Commercial Use Exemptions (Lead – Kathleen Roberts, North American Metals Council):** Add an exemption for inorganic byproducts that are recycled, reused, or reprocessed and reacted to form a different chemical or molecular form of the initial inorganic component chemical

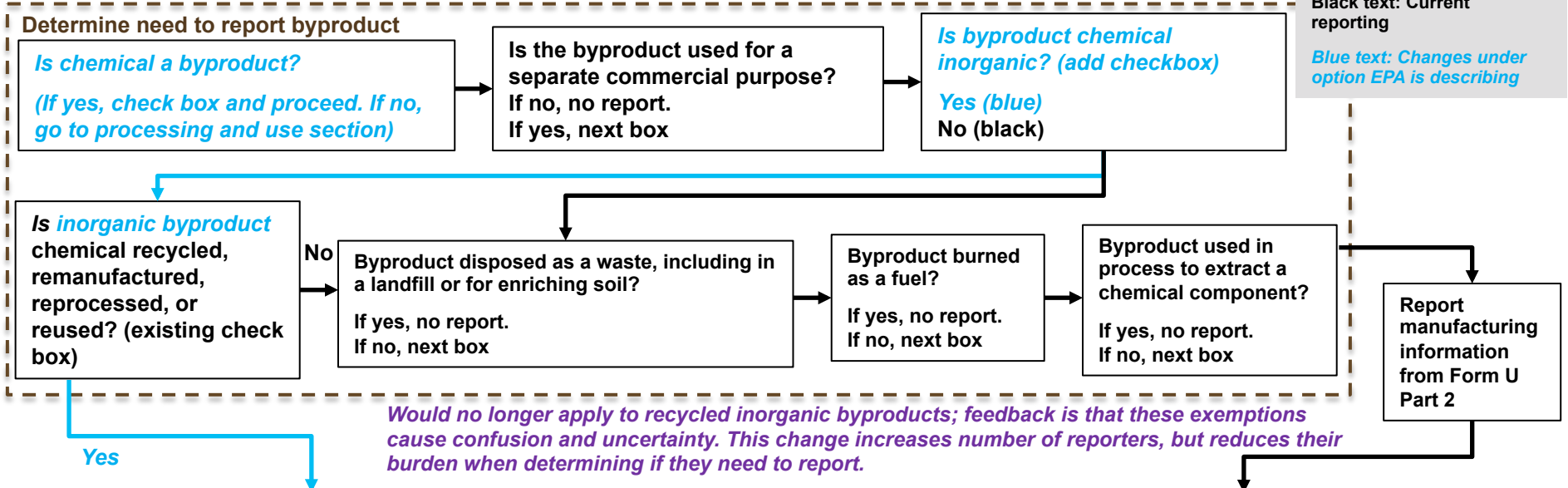
**C - Limit Processing & Use Reporting (Lead - Doug Green, Utility Solid Waste Activities Group):** Partially exempt inorganic byproducts that are recycled, reused, or reprocessed from reporting processing and use information under part 3 of CDR Form U, unless specifically listed for full reporting

**D – Improve Data (Lead - Rick Reibstein, National Pollution Prevention Roundtable):** Improve data by eliminating the byproduct exemptions and requiring the reporting of processing and use information from processors instead of byproduct manufacturers, for inorganic byproducts that are recycled, reused, or reprocessed. The group will discuss questions of clarification and share initial perspectives on strengths and considerations/concerns.

**E – Limit Reporting for Site-Specific Catalyst Recycling (Lead - Jim Cooper, American Fuel and Petrochemical Manufacturers):** Limit reporting for catalyst recycling, when as an inorganic byproduct that is recycled, reused, or reprocessed either at the site of byproduct manufacture or at a different site, it is returned to the site of byproduct manufacture for further use or processing.

**F – Limit Reporting for Reuse of Inorganic Byproducts (Lead - Jim Cooper, American Fuel and Petrochemical Manufacturers):** Limit reporting for inorganic byproducts that are isolated from a process and later reintroduced into that same process.

## Reporting by Byproduct Manufacturer – Simplify Reporting Draft Option



Black text: Current reporting  
Blue text: Changes under option EPA is describing

*Determine whether it fits within a defined category (like TRI categories). Report either by category or as listed on TSCA Inventory.*

**Report manufacturing information from Form U Part 2**

*Categories reduce reporting challenges and reduce burden. EPA will not use this as a trigger for enforcement actions.*

### Reporting under Revised Processing & Use Reporting Requirements

- Check all that apply and add % Production Volume for each:*
- Used to manufacture a chemical substance
  - Directly used (e.g., landfill cover, mine fill, land application, burned as a fuel)
  - Directly used and incorporated into a product (e.g., wallboard, cement)
    - Select product category
    - Intended for children's use?
  - Other (specify)
    - Select product category
    - Intended for children's use?

*Significantly reduces processing and use reporting requirements. Less burden, but less processing and use information.*

### Reporting under current Processing & Use Reporting Requirements in Form U Part 3

PART III. PROCESSING AND USE INFORMATION												
SECTION A. INDUSTRIAL PROCESSING AND USE										N/A		
	a. Type of Process or Use		b. Sector(s)		c. Industrial Function Category		d. Percent Production Volume		e. Number of Sites		f. Number of Workers	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.A.1												
3.A.2												
3.A.3												
3.A.4												
3.A.5												
3.A.6												
3.A.7												
3.A.8												
3.A.9												
3.A.10												
SECTION B. CONSUMER AND COMMERCIAL USE										N/A		
	a. Product Category		b. Consumer or Commercial or both		c. Used in Products Intended for Children?		d. Percent Production Volume		e. Maximum Concentration		f. Number of Commercial Workers Reasonably Likely to be Exposed	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.B.1												
3.B.2												
3.B.3												
3.B.4												
3.B.5												
3.B.6												
3.B.7												
3.B.8												
3.B.9												
3.B.10												

\*Substantiation required for CBI claims on chemical identity, site identity, and processing or use information.

**Short Title:** Approach A - Simplify Reporting

**General Description:** Simplify reporting by removing need to consider exemptions, enabling reporting in categories, and reporting reduced processing and use information, for inorganic byproducts that are recycled, reused, or reprocessed

**Lead:** Susan Sharkey, US Environmental Protection Agency (EPA)

**Objectives used in developing this proposal:**

- Maintain adequate data to ensure effective implementation of TSCA, including for chemical prioritization and risk evaluation, while recognizing that current regulations could be updated to reflect current industry practices, and to improve reporting efficiencies.
- Ensure that necessary information on the byproduct chemical substances such as potential exposure and amounts is not lost and that the Agency is able to continue to evaluate these chemical substances as is done for all other chemical substances.
- Meet the statutory requirements expressed in the FACA charge.

**Supporting documents:**

- Importance of CDR (separate document)
- Flow chart description of option (separate document)
- Current exemption (Appendix A)

**EPA Proposal:**

Resolve the problems associated with the identified complexity of determining whether and what one needs to report, including determining what downstream users/recyclers are doing with the byproduct, using a combination of regulatory changes for inorganic byproducts. The changes include:

- Inorganic byproducts would be ineligible for the exemptions listed in 720.30(g) (referenced by 711.10(c))
  - “burn it as a fuel”
    - Committee members have questioned whether this could even apply to inorganics, therefore it is anticipated that this is not likely to impact inorganic byproducts.
  - “dispose of it as a waste, including in a landfill or to enrich soil”
    - Land applications are more likely to have high-exposure scenarios, and potentially high hazard with inorganics.
  - “extract component chemical substances from it for commercial purposes”
    - Recognizes that there is not an environmental difference between when the byproduct is used to extract a component substance and where it’s used to chemically react and create a related substance (e.g., producing copper from spent stripping solution).
    - Reduces the effort of determining need to report by eliminating the requirement to determine eligibility for the exemption.
    - A benefit is that the use of chemical category identifications in conjunction with the loss of this exemption may have the net effect of reducing the total amount of reporting.
- Enable reporting of inorganic byproducts that are sent for recycling in identified categories, most likely modeling after the categories used by TRI. For example, “copper compounds”
  - Simplifies reporting by eliminating the need to specifically identify the byproducts that fit within the categories.

- Enables the single reporting of a different byproduct streams that otherwise might have to be reported separately.
- The category would not be listed on the TSCA Inventory, but rather would be an alternate way to report such byproducts for CDR purposes.
- Reporting as listed on the TSCA Inventory would be required for substances that don't fit within a category or by the reporter's preference.
- Reporting requirement changes to:
  - Add a checkbox that indicates the reported substance is a byproduct.
    - This would be checked by the manufacturer of the byproduct.
  - Add a checkbox that indicates the reported substance is inorganic.
    - This is needed to determine whether or not the exemptions need to be considered.
  - Retain the checkbox indicating that the reported substance is being recycled.
    - Add the requirement to indicate how much of the reported production volume is recycled, reprocessed, reused (this could be in ranges).
  - Add a checkbox that indicates the source chemical was a byproduct that is being recycled.
    - This would be the recycler reporting when they are manufacturing something using the byproduct. The byproduct manufacturer would not check this box.
- Replace the current processing and use reporting for inorganic byproducts that are recycled, reprocessed, or reused:
  - Report using more limited selections, including the applicable % PV, along the lines of:
    - Used to manufacture a chemical substance, including extraction of a component substance or use as a feedstock to create a different chemical substance;
    - Directly used (e.g., landfill cover, mine fill, land application, burned as a fuel);
    - Directly used and incorporated into a product (e.g., wallboard, cement), report also:
      - Indicate product category
      - Used in a product specifically intended for use by children;
    - Other (specify), report also:
      - Indicate product category
      - Used in a product specifically intended for use by children.
  - This would limit the reporting requirements related to the processing and use information
  - This would address concerns raised by some of the Committee participants regarding the data they'd like to see and would find useful (specifically, they have mentioned the "land application" types of uses)

## Reasoning

- Why this approach?
  - Exemptions were originally intended to mesh with RCRA, but due to changes in implementation and other rule changes, they don't currently mesh.
  - Data users have expressed interest in information that is currently exempted.
  - Application of exemptions is somewhat complicated. A large number of questions received during the submission period have to do with applying the exemptions.
    - There is ambiguity when reporting and a choice of more than one path for the reporter to follow when there should only be one.
    - Increased simplification of what seems like increased reporting will still likely reduce burden (e.g., cutting reporting cost: determination of need to report and downstream processing/use).

**How do these changes address the mandate of “limit reporting requirements”?**

Although removing the exemptions appears to increase reporting requirements, it simplifies reporting by removing the complexities with identifying if the exemption applies and determining ahead of time what is being done downstream. These issues are a major source of questions to EPA during the CDR submission period, and a major concern raised during the Committee meetings. The reduction in rule familiarization and compliance determination would apply to all CDR submitters, including manufacturers of inorganic byproducts. For those currently applying the exemptions, there would be an increase associated with reporting; the number of submitters that currently do not report and would be added is unknown but expected to be small.

Combined with reporting in categories, this would enable the byproduct manufacturers to combine different byproduct streams that fit within the same category, thereby reducing the need to report for multiple substances.

Replacing the processing and use information with limited reporting is a reduction in the reporting requirements. Current reporting elements under Part III include 120 potential needed responses. Complexity or difficulty of the reporting increases throughout Part III. This option would diminish potential needed responses down to only 12. Processing and Use Information reduced significantly for recycled inorganic byproduct reporters under this option.

**What information is gained from these changes?**

Would provide the basic information for inorganic byproducts that are currently not being reported because of the current exemptions. This would enable EPA and others to have a more complete picture of chemical manufacturing in the U.S.

**What information is lost from these changes?**

Specificity regarding which chemical byproduct substance is being manufactured. More detailed information about processing and use, including use sector and function of substance.

**Appendix A:**

**Current exemptions:**

**§711.10 Activities for which reporting is not required.**

A person described in §711.8 is not subject to the requirements of this part with respect to any chemical substance described in §711.5 that the person solely manufactured or imported under the following circumstances:

...

(c) The person manufactured the chemical substance described in §711.5 in a manner described in 40 CFR 720.30(g) or (h).

**§720.30 Chemicals not subject to notification requirements.**

The following substances are not subject to the notification requirements of this part:

...

(g) Any byproduct if its only commercial purpose is for use by public or private organizations that (1) burn it as a fuel, (2) dispose of it as a waste, including in a landfill or for enriching soil, or (3) extract component chemical substances from it for commercial purposes. (This exclusion only applies to the byproduct; it does not apply to the component substances extracted from the byproduct.)

(h) The chemical substances described below: (Although they are manufactured for commercial purposes under the Act, they are not manufactured for distribution in commerce as chemical substances per se and have no commercial purpose separate from the substance, mixture, or article of which they are a part.)

(1) Any impurity.

(2) Any byproduct which is not used for commercial purposes.

...

**Short Title:** Approach B - Expand Commercial Use Exemptions

**General Description:** Exemption for inorganic byproducts that are recycled, reused, or reprocessed and reacted to form a different chemical or molecular form of the initial inorganic component chemical.

**Lead:** Kathleen Roberts, North American Metals Council (NAMC)

**Current status:**

711.10 Activities for which reporting is not required.

A person described in § 711.8 is not subject to the requirements of this part with respect to any chemical substance described in § 711.5 that the person solely manufactured or imported under the following circumstances:

- (a) The person manufactured or imported the chemical substance described in § 711.5 solely in small quantities for research and development.
- (b) The person imported the chemical substance described in § 711.5 as part of an article.
- (c) The person manufactured the chemical substance described in § 711.5 in a manner described in 40 CFR 720.30(g) or (h).



**720.30 (g): Chemicals Not Subject to Notification Requirements**

(g) Any byproduct if its only commercial purpose is for use by public or private organizations that (1) burn it as a fuel, (2) dispose of it as a waste, including in a landfill or for enriching soil, or (3) extract component chemical substances from it for commercial purposes. (This exclusion only applies to the byproduct; it does not apply to the component substances extracted from the byproduct.)

**Policy on regulatory interpretation:**

[T]he component to be extracted must be already existing as a distinct chemical substance in the waste stream. When the chemical substance present in the byproduct and the chemical substance extracted from the byproduct are distinct chemical substances, neither the manufacture of the byproduct nor the manufacture of the extracted chemical substance qualify for the 40 CFR 720.30(g)(3) exemption. (76 Fed. Reg. 50816, 50849 (Aug. 16, 2011)).

**Proposal:** (Revisions shown in strike-through and italics):

711.10 Activities for which reporting is not required.

A person described in § 711.8 is not subject to the requirements of this part with respect to any chemical substance described in § 711.5 that the person solely manufactured or imported under the following circumstances:

- (a) The person manufactured or imported the chemical substance described in § 711.5 solely in small quantities for research and development.
- (b) The person imported the chemical substance described in § 711.5 as part of an article.
- ~~(c) The person manufactured the chemical substance described in § 711.5 in a manner described in 40 CFR 720.30(g) or (h).~~

*(c) The person manufactured the chemical substance described in § 711.5 in a manner described in 40 CFR 720.30(g)*

*(1) If the person manufactured the chemical substance described in § 711.5 in a manner described in 40 CFR 720.30(g)(3) and the chemical substance is an inorganic substance that*

*will be subsequently reacted by oxidation, reduction, precipitation, chelation, smelting, ion exchange or other transformation, to a different form of the initial inorganic component chemical with the intent to recycle, reuse, or reprocess the inorganic chemical substance for commercial purposes, the person is not subject to reporting.*

*(d) The person manufactured the chemical substance described in § 711.5 in a manner described in 40 CFR 720.30(h).*

**Reporting burden requirements/problems(s) addressed with proposed revision(s):**

- This proposal would exempt byproduct reporting for byproducts used in recycling operations in which extraction of valuable inorganic chemical components can only be achieved through chemical reaction processes (e.g., converting metal oxide pollution control dusts to metallic form or recovery of metals from a solution of soluble metal compounds in wastewater).
  - Such recycling results in less need for additional mining of raw ore, which supports the overall goal of sustainability and reduces reliance on imported metals.
  - Aligns with EPA intent to encourage conservation and recycling of the energy and resources contained in waste material that might otherwise be discarded because of reporting burdens under TSCA.
- This proposal eliminates the need for byproduct manufacturer to know whether component chemicals are being extracted or reacted.
- By eliminating the need to know how downstream recyclers use the byproduct, this proposal simplifies the “pre-reporting” decision making process.

**Under proposal, describe information that would no longer be reported/available:**

- CDR-related information (Form U information elements) would not be reported for byproducts satisfying the new exemption criteria (in which the component chemical is an inorganic substance that will be subsequently reacted by oxidation, reduction, precipitation, chelation, or other transformation, to a different form).

**Under the proposal, describe the type of information that would remain available on the byproduct as manufactured and the byproduct as recycled for purposes of EPA evaluation:**

- CDR reporting would still be required for the inorganic substance reacted from the byproduct that goes into commercial market.
- Information on the byproduct would need to be compiled and shared with manufacturing and recycling site workers via Safety Data Sheet on manufactured byproduct per OSHA HazCom
- Depending on hazard, workplaces would need to ensure proper exposure protection for workers at manufacturing and recycling site under HazCom.
- DOT regulations also provide protection for transportation workers, if applicable.
- If the byproduct is RCRA-listed or is classified as characteristic hazardous waste under RCRA, it would be subject to regulatory reporting every two years under that program, including:
  - Amount of RCRA hazardous waste sent off-site for treatment, disposal, or recycling; and
  - Amount of RCRA hazardous waste treated, disposed of, or recycled on-site.
- EPA maintains authority for recordkeeping and reporting under TSCA 8(c) and 8(e).
- EPA maintains authority to require reporting under TSCA 8(a) PAIR and to require testing, including exposure monitoring, under Section 4.



**Short Title:** Approach C - Limit Processing & Use Reporting

**General Description:** Partially exempts inorganic byproducts that are recycled, reused, or reprocessed from reporting processing and use information under part 3 of CDR Form U, unless specifically listed for full reporting.

Limit the reporting requirements for inorganic byproducts that are recycled (“IBRs”) to Parts 1 and 2 of the CDR Reporting Form U, while enabling EPA to identify specific IBRs for reporting under Part 3 of CDR Form U as necessary. This would be a limited reporting exception consistent with the Congressional intent for EPA to reduce the CDR reporting burden for IBRs under TSCA, while still providing EPA the ability to obtain further Part 3 information on specific IBRs as needed.

**Lead:** Doug Green, Utility Solid Waste Activities Group (USWAG)

**Current status:** IBRs (unless otherwise excluded) are subject to all aspects of CDR reporting, including downstream industrial/commercial and consumer use and reporting requirements at 40 C.F.R. 711.15(b)(4) – “Chemical-specific information related to processing and use.” In summary, this includes:

Industrial Processing and Use Information

- Industrial processing and site information by specific designation. This includes reporting each site that receives the IBR from the submitter either directly or indirectly. (711.15(b)(4)(i)(A))
- Specific code designation of the sectors that best describe the industrial activity associated with each industrial processing or use operation (there are 48 codes to evaluate and pick from; more than one code may be applicable depending on use). (711.15(b)(4)(i)(B))
- For each sector selected, pick the appropriate code that best represents the specific manner in which the IBR is used (there are 35 identified codes; more than one may be applicable depending on sectors selected). If more than 10 processing/use functions are selected for a particular chemical substance, report the 10 unique combinations that cumulatively represent the largest percentage of the submitter’s production volume for the substance, measured by weight. (711.15(b)(4)(i)(C))
- The estimated percentage of total production volume of the IBR associated with each combination of industrial processing or use operation, sector, and industrial function category. (711.15(b)(4)(i)(D))
- For each combination of industrial processing or use operation, sector, and industrial function category, the submitter must estimate the number of sites at which each reportable chemical substance is processed or used. (711.15(b)(4)(i)(E))
- For each combination of industrial processing or use operation, sector, and industrial function category, the submitter must estimate the number of workers reasonably likely to be exposed to each reportable chemical substance. (711.15(b)(4)(i)(F))

Consumer and Commercial Use Information

- Specific code designation of the consumer and commercial product category or categories that best describe the consumer and commercial products in which IBR is used (there are 33 codes to choose from; more than one code may apply). If more than

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10 codes apply, report the 10 codes that cumulatively represent the largest percentage of the submitter's production volume for the substance, measured by weight. (711.15(b)(4)(ii)(A))

- An indication, within each consumer and commercial product category, whether the use is a consumer or a commercial use. (711.15(b)(4)(ii)(B))
- Within each consumer and commercial product category, whether any amount of the IBR is present in any consumer products intended for use by children age 14 or younger, regardless of the concentration of the IBR remaining in or on the product. (711.15(b)(4)(ii)(C))
- The estimated percentage of the submitter's site's total production volume of the IBR associated with each consumer and commercial product category. (711.15(b)(4)(ii)(D))
- The estimated typical maximum concentration, measured by weight, of the chemical substance in each consumer and commercial product category reported. (711.15(b)(4)(ii)(E))
- The estimated number of commercial workers reasonably likely to be exposed to each IBR. (711.15(b)(4)(ii)(F))

The burden associated with reporting this information is underscored by EPA's 2016 CDR Reporting Instructions. 15 pages are needed to explain how to report the above information.

[https://www.epa.gov/sites/production/files/2016-05/documents/instructions\\_for\\_reporting\\_2016\\_tasca\\_cdr\\_13may2016.pdf](https://www.epa.gov/sites/production/files/2016-05/documents/instructions_for_reporting_2016_tasca_cdr_13may2016.pdf)

**Proposal:** Revise 40 C.F.R. 711.6.(b) (Partial Exemptions) by adding a new subparagraph (3) providing that IBRs shall not be subject to the reporting requirements in 40 C.F.R. 711.15(b)(4). EPA may identify specific IBRs that would be subject to Part 3 Form U reporting if it identifies particular risk/exposure factors warranting the reporting information. This reporting limitation for IBRs shall not apply to any IBR that is listed in the 2014 TSCA Work Plan or any IBR that EPA has designated for prioritization.

**Support for Reporting Limitation:**

- EPA currently is collecting information of questionable value (e.g., accuracy of the use information is questionable the further downstream you go) that is nonetheless a significant burden for manufacturers of IBRs to collect. There is no prioritization with respect to which particular IBRs warrant this type of reporting burden.
- Manufacturers of IBRs must certify accuracy of information to within specified reporting limits at the risk of enforcement.
- EPA already has extensive information on certain IBRs that are recycled. In addition, certain IBRs are already regulated by EPA under other regulatory regimes. There is therefore no reason for EPA to collect additional information on part 3 of Form U for these IBRs. For example, the recycling of coal ash is subject to new federal regulations at 40 C.F.R. 257.53; when promulgating those regulations in 2015, EPA exempted the beneficial use of CCR from regulation because it found no evidence that such recycling poses a significant risk to human health and the environment. In addition, to qualify as exempt, large scale unencapsulated beneficial uses of CCR must not result in environmental releases to groundwater, surface water, soil and air above those from analogous products made without CCR, or above relevant regulatory and health-based benchmarks for human and ecological receptors. Given these existing regulations, EPA is unlikely to regulate these IBRs under TSCA; thus, there is no need

for the reporting burden of Part 3 of Form U. However, as noted above, EPA could collect additional information on IBRs on a case-by-case basis, as needed.

- Before subjecting manufacturers of IBRs to the increased reporting burdens of Part 3 of Form U, it should evaluate whether the information will really be used under TSCA. As discussed below, enough basic information will still be provided to enable EPA to determine whether specific downstream information will be needed on a particular IBR for purposes of TSCA evaluation.

**Under the proposal, describe the type of information that would remain available to EPA:**

- Much information would still be provided to EPA. Specifically, IBRs would still remain subject to Parts 1 and 2 of Form U, including, among other things:
  - company and plant site information
  - chemical specific information regarding the IBRs
  - whether the IBRs are manufactured domestically or imported
  - the total volume of IBRs manufactured or imported reported to two significant figures of accuracy
  - whether the IBRs are used on-site or directly exported (sent out of the country) reported to two significant figures of accuracy
  - whether the IBRs are recycled
  - the total number of workers likely to be exposed to each IBR at each site
  - the maximum concentration measured by percentage of weight of each IBR at the it is sent off-site from each site
  - the physical form of the IBR when sent off-site

So, EPA would still be receiving significant data on IBRs; such data would be more accurate and more reliable than Part 3 data for IBRs and would allow EPA to determine whether additional data are needed based on its risk-prioritization process under TSCA.

- If the IBR is a hazardous waste under RCRA, it may be subject to regulatory reporting every two years under that program, including:
  - The amount of RCRA hazardous waste sent off-site for treatment, disposal, or recycling; and
  - The amount of RCRA hazardous waste treated, disposed of, or recycled on-site.
- EPA maintains authority for recordkeeping and reporting under TSCA 8(c) and 8(e).
- EPA maintains authority to require additional reporting on specific IBRs under TSCA 8(a) PAIR and to require testing, including exposure monitoring, under Section 4.
- Information on the IBR would need to be compiled and shared with manufacturing and recycling site workers via Safety Data Sheet per OSHA HazCom.
- Depending on hazard, workplaces would need to ensure proper exposure protection for workers at manufacturing and recycling site under HazCom.
- DOT regulations also provide protection for transportation workers, if applicable.

**Short Title:** Approach D - Improve Data

**General Description:** Improves data by eliminating the byproduct exemptions and requiring the reporting of processing and use information from processors instead of byproduct manufacturers, for inorganic byproducts that are recycled, reused, or reprocessed.

**Lead:** Rick Reibstein, National Pollution Prevention Roundtable (NPPR)

**Introduction:**

During the discussion of the proposals before the Substantive Subcommittee of the Negotiation on Limiting Reporting of Inorganic Byproducts that are Recycled, I urged the participants to consider means of changing the reporting system so that reporting burden could be lessened, and the quality of the information received improved. I was asked to provide an example of a reporting system that would be less burdensome and which would provide better than information than the current Chemical Data Reporting system.

The TSCA mandate for this negotiation is to limit the reporting requirements for manufacturers of any inorganic byproducts, when such byproducts, whether by the byproduct manufacturer or by any other person, are subsequently recycled, reused, or reprocessed.

**Proposal:**

The following is presented as an example of how manufacturers can see their reporting burden lifted, while the public receives better information.

*1. Eliminate the exemptions. Treat hazardous or toxic byproducts the same whether they are sent for disposal, soil amendment, energy recovery, physical recovery, or chemical reaction. This would provide information society needs concerning where toxics go in commerce, such as toxics along for the ride.*

This would constitute burden reduction. It would eliminate the work of determining exemption applicability. It would also eliminate the fear of enforcement for having wrongly taken an exemption, and the need to document your efforts to comply.<sup>1</sup>

*2. Only Processors report Processing Information (Part 3). Manufacturers would report where they send materials so they can be tracked to the processor and processor compliance with reporting ensured.<sup>2</sup> Manufacturers would report this instead of Part 3 information, and the recipient Processor would be responsible for reporting the relevant Part 3 information. This responsibility would pass to all recipients of byproducts in the chain until the material is incorporated into product or otherwise ends life.*

The current system requires that manufacturers report on what is happening downstream – at locations not under their ownership or control. This puts a burden on them that is better placed on those in a better position to report the information. Shifting the reporting burden to where it belongs would provide better information about downstream uses and relieve reporting burden on

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<sup>1</sup> Reexamining the exemptions is also warranted by the fact that they were crafted long ago, and the distinctions between the categories of fates do not seem to merit the different result – that one category is either regulated fully or another is completely exempt. More efficient, less burdensome reporting systems could be tailored to specific kinds of commercial fate.

<sup>2</sup> We cannot know whether the materials are “subsequently recycled, reused, or reprocessed” if we don’t know where they go.

manufacturers. Manufacturers would not have the burden of gathering the information or the risk of improper reporting or wrongly taking an exemption. The full form U may not be necessary for new downstream reporters. Efficient reporting systems could be tailored to the particular reuse paths.

This would allow the agency and the public to better track where toxics go in commerce. The agency could more accurately focus in on areas where there may be unreasonable risks. With our current data many assumptions must be made to form a picture of where those risks are occurring. With better data we could have more accurate risk assessment.

### *Summary*

Under this proposal, manufacturers would no longer report Part 3 of form U. Instead they would report on where they are sending secondary materials. Because the reporting would be accomplished by processors in a better position to have the required information, no information would be lost and higher quality information would be gained. The same categories of information would be still required. However, more information from the manufacturer about the destination of shipped materials would be obtained, and the information about uses and impacts obtained from the processors will be of a higher quality. In addition, because exemptions are eliminated, more information about where secondary materials are currently transferred or ending up will be obtained. The elimination of the exemptions will also significantly reduce the burden of reporting for all currently having to document and research exemption applicability.

### **Reporting burden requirements/problems(s) addressed with proposed revision(s):**

- It would eliminate the work of determining exemption applicability. It would also eliminate the fear of enforcement for having wrongly taken an exemption, and the need to document your efforts to comply.<sup>3</sup>
- Manufacturers would no longer report Part 3 of form U. Instead they would report on where they are sending secondary materials. Manufacturers would not have the burden of gathering the information on what is happening downstream or the risk of improper reporting or wrongly taking an exemption. Instead, the recipient processor(s) would be responsible for reporting the relevant Part 3 information.

### **Under proposal, describe information that would no longer be reported/available:**

- None.

### **Under the proposal, describe the type of information that would remain available on the byproduct as manufactured and the byproduct as recycled for purposes of EPA evaluation:**

Because the reporting would be accomplished by processors in a better position to have the required information, no information would be lost and higher quality information would be gained. The same categories of information would be still required. However, more information from the manufacturer about the destination of shipped materials would be obtained, and the information about uses and impacts obtained from the processors will be of a higher quality. In addition, because exemptions are eliminated, more information about where secondary materials are currently transferred or ending up will be obtained.

This proposal would allow the agency and the public to better track where toxics go in commerce. The agency could more accurately focus in on areas where there may be unreasonable risks. With

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<sup>3</sup> Reexamining the exemptions is also warranted by the fact that they were crafted long ago, and the distinctions between the categories of fates do not seem to merit the different result – that one category is either regulated fully or another is completely exempt. More efficient, less burdensome reporting systems could be tailored to specific kinds of commercial fate.

our current data many assumptions must be made to form a picture of where those risks are occurring. With better data we could have more accurate risk assessment.

**Discussion:**

The purposes of TSCA were to be gap-filling. Its strategy is to focus on the use of chemicals, the source of many pollution problems. The Chemical Data Rule is supposed to give us a picture of where things are going. Experts have long pointed out that what we really need to get a handle on the problems of toxics and pollution is to have input-output flow charts that show us where things go. That's the start of grappling with the problem. This model of tracking materials has been proven to work by pollution prevention programs all over the world. Businesses have testified how they have benefitted from the approach of materials use efficiency, which begins with tracking. Management accountants have adopted methods and software for better managing materials flows. Ecological economists have drawn these maps for many contexts, as have industrial planners. But our knowledge is extremely limited, the underlying data is poor or expensive.

The ability to construct a more useful picture of the movement of toxics in society would provide a better basis for policies, for planning, for assistance, for research and development, and for education. It benefits industry for the agency mandated to find and address unreasonable risks to have a better picture of where risks occur and what causes them. With a better understanding of which risks are distributed where, inspections and regulatory actions are more appropriately targeted.

TSCA's purpose is to develop "adequate information with respect to the effect of chemical substances and mixtures on health and the environment". Congress recognized "that the development of such information should be the responsibility of those who manufacture and those who process such chemical substances and mixtures". As necessary for the effective implementation of the law, §2607 (Reporting and retention of information) contemplates that the Administrator may reasonably require such information as the number of individuals exposed and reasonable estimates of the number who will be exposed. This is now obtained from the manufacturer. This is the kind of information that would be lost by simply eliminating requirements to report Part 3, and which can be improved by obtaining from processors.

Section 2607 allows the Administrator to "apply any reporting obligations to those persons likely to have information relevant to the effective implementation of this subchapter." This need not mean subjecting the population of processors to the same requirements as manufacturers now meet. The same section allows for "differing reporting and recordkeeping requirements on manufacturers and processors". The section says reporting "shall include the level of detail necessary to be reported".

If the discussion of shifting the burden of reporting processing information to processors is deemed to be outside the scope of this mandated negotiation, it does not seem to be outside of the scope of the law. "For purposes of this section", the statute reads, "the terms 'manufacture' and 'process' mean manufacture or process for commercial purposes."

**Short Title:** Approach E – Limit Reporting for Site-Specific Catalyst Recycling

**General Description:** Limit reporting for catalyst recycling, when as an inorganic byproduct that is recycled, reused, or reprocessed either at the site of byproduct manufacture or at a different site, it is returned to the site of byproduct manufacture for further use or processing.

**Lead:** Jim Cooper, American Fuel and Petrochemical Manufacturers (AFPM)

**Proposal:**

The reporting of inorganic byproducts that are recycled on-site or confined to recycling at another site, where recycled material is sent back to the original site of use (and byproduct generation), should be afforded a limited reporting burden that includes one-time reporting of the name of the byproduct and the average percentage range of byproduct that is recycled for subsequent use. If any changes occur, the generator of the byproduct would report that change to EPA in the next reporting cycle.

The manufacturer of the original material already reports the physical form of the catalyst, whether the catalyst is being recycled, and downstream uses on Form U as part of its CDR reporting obligations, including the sectors in which the catalyst is used, the number of sites and the number of workers. The information that EPA does not have from the original manufacturer is the name of the byproduct and how much is sent for recycling.

**General Description:**

Catalysts are used throughout the chemical and refining industries to help produce desirable products under less hazardous conditions. They are critical to work place safety. Catalysts are used in closed systems, which are designed to reintroduce the catalyst into a processing unit or reaction vessel until the catalyst is spent and in need of regeneration (an industry term synonymous with recycling). Catalyst regeneration also takes place in closed systems during processing and often makes use of chemical reactions to return the spent catalyst to its original and useful molecular species.

The methods for catalyst regeneration are varied, depending on molecular structure of the spent catalyst and the specific chemical reactions required to return the catalyst to its original molecular species. The one thing that catalyst regeneration techniques tend to have in common is that the reactions take place in closed systems during processing. During regeneration, the spent catalyst is introduced into a reaction vessel with one or more other chemicals to induce a reaction that consumes the reactants and forms one or more new molecular species. Some of the new molecular species are disposed of as waste and subject to federal and local requirements. The new molecular species of interest is also consumed in each step until the original catalyst species is produced. The only products resulting from this multi-step process are some wastes (not currently reportable under CDR) and the original catalyst species. The only commercial intent in this process is to recycle a spent catalyst and return that catalyst for its original purpose.

**Reporting burden requirements/problems(s) addressed with proposed revision(s):**

- The time and resources necessary to identify the substance or substances and, in some cases, submit a PMN for the specific inorganic species or UVCB not currently on the Inventory or distributed in commerce.
- The time and resources necessary to track and report the amounts manufactured on an annual basis.
- These costs can be excessive and repetitive when one considers that facilities and/or processes that manufacture the same products may use slightly different raw materials, catalysts, unit sizes and process conditions, which can impact the specific chemical identity produced (so there is no cookie cutter approach across facilities or units). In addition, these materials and conditions can change over time as companies make efforts to optimize processes.

- The CDR database would contain higher quality, more accurate data because there would not be multiple counting of the same molecule as it passed through the recycle loop.

**Under proposal, describe information that would no longer be reported/available:**

- Redundant information pertaining to the original catalyst would not be reported.
- Chemical substances temporarily produced and then consumed during the recycling process would not be reported.

**Under the proposal, describe the type of information that would remain available on the byproduct as manufactured and the byproduct as recycled for purposes of EPA evaluation:**

- If the generator of the inorganic byproduct sells that byproduct into commerce for uses other than those covered by this reduced reporting proposal, those would still be reported under the CDR by the byproduct manufacturer.
- Recycling of the inorganic byproduct may still be subject to certain TRI and RCRA reporting requirements.
- The original chemical substance would still be reported under CDR as required.

**Conditions to be met for a self-executing exemption:**

1. The virgin substance has already been reported under CDR,
2. Production of the inorganic byproduct takes place in a closed system during any processing and the entire process takes place at only one site,
3. Regeneration takes place in a closed system during any processing and the entire process takes place at only one site, and
4. Recycled substance is used by the same entity that either generated the inorganic byproduct or that needed it to be regenerated.

**Background**

**Status:**

711.10 Activities for which reporting is not required.

A person described in § 711.8 is not subject to the requirements of this part with respect to any chemical substance described in § 711.5 that the person solely manufactured or imported under the following circumstances:

- (a) The person manufactured or imported the chemical substance described in § 711.5 solely in small quantities for research and development.
- (b) The person imported the chemical substance described in § 711.5 as part of an article.
- (c) The person manufactured the chemical substance described in § 711.5 in a manner described in 40 CFR 720.30(g) or (h).

**720.30: Chemicals Not Subject to Notification Requirements**

(g) Any byproduct if its only commercial purpose is for use by public or private organizations that (1) burn it as a fuel, (2) dispose of it as a waste, including in a landfill or for enriching soil, or (3) extract component chemical substances from it for commercial purposes. (This exclusion only applies to the byproduct; it does not apply to the component substances extracted from the byproduct.)

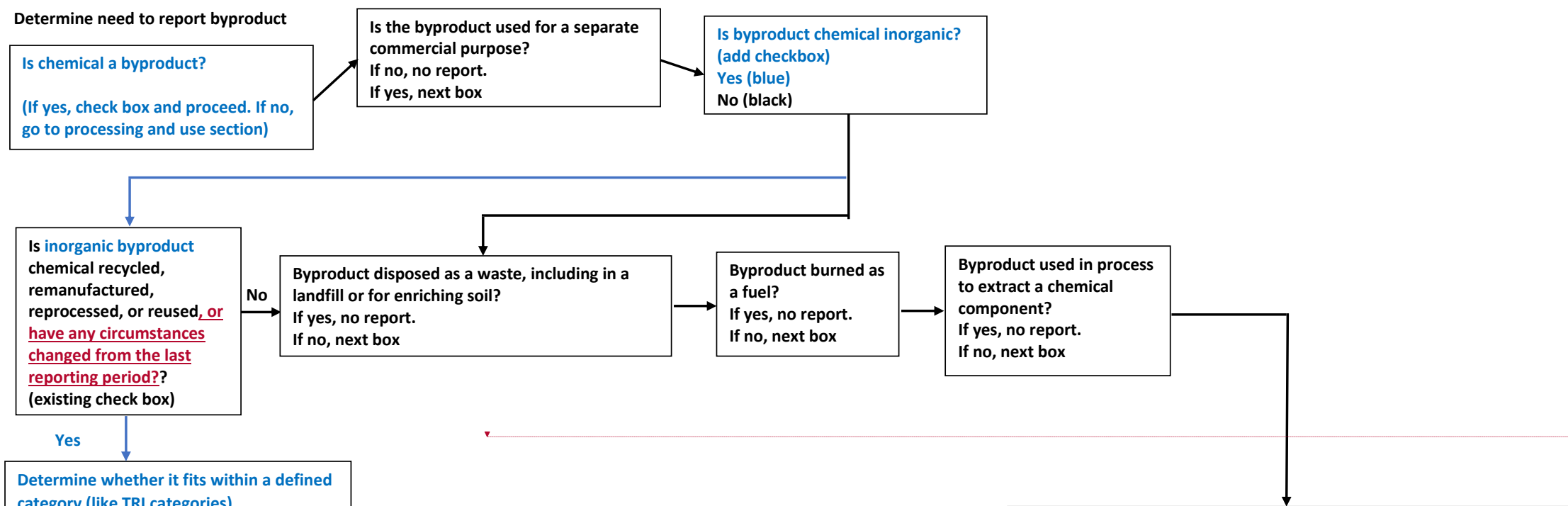
(h) The chemical substances described below: (Although they are manufactured for commercial purposes under the Act, they are not manufactured for distribution in commerce as chemical substances per se and have no commercial purpose separate from the substance, mixture, or article of which they are a part.)

- (1) Any impurity.
- (2) Any byproduct which is not used for commercial purposes.



- (3) Any chemical substance which results from a chemical reaction that occurs incidental to exposure of another chemical substance, mixture, or article to environmental factors such as air, moisture, microbial organisms, or sunlight.
- (4) Any chemical substance which results from a chemical reaction that occurs incidental to storage or disposal of another chemical substance, mixture, or article.
- (5) Any chemical substance which results from a chemical reaction that occurs upon end use of another chemical substance, mixture, or article such as an adhesive, paint, miscellaneous cleanser or other housekeeping product, fuel additive, water softening and treatment agent, photographic film, battery, match, or safety flare, and which is not itself manufactured or imported for distribution in commerce or for use as an intermediate.
- (6) Any chemical substance which results from a chemical reaction that occurs upon use of curable plastic or rubber molding compounds, inks, drying oils, metal finishing compounds, adhesives, or paints, or any other chemical substance formed during the manufacture of an article destined for the marketplace without further chemical change of the chemical substance except for those chemical changes that occur as described elsewhere in this paragraph.
- (7) Any chemical substance which results from a chemical reaction that occurs when (i) a stabilizer, colorant, odorant, antioxidant, filler, solvent, carrier, surfactant, plasticizer, corrosion inhibitor, antifoamer or defoamer, dispersant, precipitation inhibitor, binder, emulsifier, deemulsifier, dewatering agent, agglomerating agent, adhesion promoter, flow modifier, pH neutralizer, sequesterant, coagulant, flocculant, fire retardant, lubricant, chelating agent, or quality control reagent functions as intended, or (ii) a chemical substance, which is intended solely to impart a specific physiochemical characteristic, functions as intended.
- (8) Any nonisolated intermediate.
  - (i) Any chemical substance which is manufactured solely for non-commercial research and development purposes. Non-commercial research and development purposes include scientific experimentation, research, or analysis conducted by academic, government, or independent not-for-profit research organizations (e.g., universities, colleges, teaching hospitals, and research institutes), unless the activity is for eventual commercial purposes.

## Approach E – Limit Reporting for Site-Specific Catalyst Recycling



*Categories reduce reporting challenges and reduce burden. EPA will not use this as a trigger for enforcement actions.*

**One-time Reporting under Revised Processing & Use Reporting Requirements**

Check all that apply and add % Production Volume for each:

- Used to manufacture another chemical substance
- Directly used (e.g., landfill cover, mine fill, land application)
- Directly used and incorporated into a product (e.g., wallboard, cement)
- Recycled for same use
- Other (specify)

**Reporting under current Processing & Use Reporting Requirements**

PART III. PROCESSING AND USE INFORMATION												
SECTION A. INDUSTRIAL PROCESSING AND USE										N/A		
	a. Type of Process or Use		b. Sector(s)		c. Industrial Function Category		d. Percent Production Volume		e. Number of Sites		f. Number of Workers	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.A.1												
3.A.2												
3.A.3												
3.A.4												
3.A.5												
3.A.6												
3.A.7												
3.A.8												
3.A.9												
3.A.10												
SECTION B. CONSUMER AND COMMERCIAL USE										N/A		
	a. Product Category		b. Consumer or Commercial or both		c. Used in Products Intended for Children?		d. Percent Production Volume		e. Maximum Concentration		f. Number of Commercial Workers Reasonably Likely to be Exposed	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.B.1												
3.B.2												
3.B.3												
3.B.4												
3.B.5												
3.B.6												
3.B.7												
3.B.8												
3.B.9												
3.B.10												

*Deleted: Would no longer apply to recycled inorganic byproducts; feedback is that these exemptions cause confusion and uncertainty. This change increases number of reporters, but reduces their burden when determining if they need to report. ¶*

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**Short Title:** Approach F – Limit Reporting for Reuse of Inorganic Byproducts

**General Description:** Limit reporting for inorganic byproducts that are isolated from a process and later reintroduced into that same process.

**Lead:** Jim Cooper, American Fuel and Petrochemical Manufacturers (AFPM)

**Proposal:**

In cases where a byproduct is isolated from a process and later reintroduced into that same process, CDR reporting should be limited to one-time reporting of the name of the byproduct and the amount that is reused. If any changes occur, the generator of the byproduct would notify EPA of the change during the next reporting cycle.

The manufacturer of the original material already reports the physical form, whether the catalyst is being recycled, and downstream uses on Form U as part of its CDR reporting obligations, including the sectors in which the catalyst is used, the number of sites and the number of workers. The information that EPA does not have from the original manufacturer is the name of the byproduct and how much is reused in the process.

**General Description:**

There are processes where a byproduct is generated and isolated for further use. The byproduct has a similar hazard profile as the original material. The byproduct may be stored, but is reintroduced into the process and uses in a manner consistent with the original material.

**Examples:**

**Scrap Metal Recycling:** Metal is melted onsite. As part of the process, some metal oxide is formed but will be reacted back to metal, resulting in a process that includes a reaction process of metal to metal oxide and back to metal. The recycled metal is added to the final metal product. No metal oxide byproduct escapes from the overall process, and the metal derived from the byproduct has the same chemical identity as the (non-reportable) metal derived directly from input metal via melting and solidification (no chemical reaction).

**Portland Cement:** Portland cement is a mixture of chemical substances made by heating a variety of raw materials from natural and industrial sources in a kiln. The finely ground raw materials are fed into the cement kiln and are heated to above 2,700 degrees Fahrenheit in a process referred to as “calcining.” During this process, chemical reactions occur and certain compounds are formed and combined to produce “clinker.” Due to the variability of natural and industrial raw materials as well as impurities, there are subtle variations in the chemical composition of the clinker; however, there are four general chemical compounds that are reportable under CDR: Tricalcium silicate (12168-85-3), Dicalcium silicate (10034-77-2), Tricalcium aluminate (12042-78-3), and Tetracalcium aluminoferrite (12068-35-8). These chemical compounds exist in an inseparable crystalline structure within the clinker. After the clinker is cooled, cement plants grind it in finish mills with smaller amounts of gypsum and other inorganics to make portland cement.

During the manufacturing process of clinker, cement kiln dust (CKD) may be generated and removed from the kiln system for various purposes (e.g., pollution controls or quality). Under the TSCA inventory this material is listed as “Flue dust, portland cement (68475-76-3)” and is a UVCB. CKD consists of a mixture of calcined and partially calcined raw materials, including the portland cement chemicals listed above. CKD may be immediately returned to the raw feed in a closed system or stored for subsequent recycling into raw feed, recycling into the final product, disposal, or sale.

CKD returned as raw feed in a closed system is exempt from CDR as a non-isolated intermediate. CKD that is disposed in a landfill is excluded from CDR under the landfill disposal exclusion. CKD sold as a product would be reportable under CDR. CKD that is removed from the system and subsequently returned as raw feed and undergoes further chemical reaction could, in some circumstances, be deemed an isolated intermediate, and CKD that is removed from the system and ground with clinker, but undergoes no further chemical reaction, to make the final product could, in some circumstances, be deemed an isolated byproduct. In these scenarios, the CKD is indistinguishable from the four chemical compounds reported under CDR and is produced from the same raw materials.

**Flat Glass Manufacturing:** Flat glass manufacturing begins with the weighing and blending of raw materials into a mixed batch. The principal ingredient is silica sand, with others being soda ash, dolomite, limestone, salt cake, rouge, charcoal and crushed (recycled) glass. The receiving, storage, weighing and mixing equipment is enclosed in a fully automated batch house.

During the batching process, raw materials are taken from the storage silos and weighed individually on high accuracy industrial scales. The mixed batch is then blended with an appropriate amount of cullet and conveyed to the furnace mixed batch storage hopper for charging into the refractory constructed melt furnace. The furnace melts the raw material batch to a state of molten glass with temperatures approaching 1600 °C. During the glass melting process, the mixed batch material floats on molten glass while being exposed to natural gas flames from above.

After the melt furnace, the glass is represented as a continuous 'ribbon', which is then stretched for thickness, annealed to relieve stress, cooled, and then cut and packaged.

The melting process generates a gaseous emission resulting from the combustion of natural gas and the vaporization of residual materials from processed raw materials. The primary flue gas chemicals include: Oxides of Nitrogen (NO<sub>x</sub>), Oxides of Sulfur (SO<sub>x</sub>), Carbon Monoxide (CO), Carbon Dioxide (CO<sub>2</sub>), and dust or Particulate Matter (PM).

In some cases, the flue gas is treated to move these air-borne pollutants from impacting the environment. The removal of the Sulfur and Carbon compounds, and Particulate Matter, is typically carried out via a scrubber in combination with an electrostatic precipitator (EP). The flue gases pass through the scrubber where it interacts with a scrubbing media or sorbent material, which creates an environment for various chemical reactions to occur between the sorbent and the flue gas chemicals. These manufactured chemicals then pass through the EP, which removes the chemicals via an electrical charge. The resulting waste stream (aka EP Dust), which consists primarily of sulfate and carbonate compounds, can either be disposed or recycled. The EP Dust is typically recycled via an enclosed pneumatic system, or through a bagging process. The individual inorganic chemicals contained in the by-product (i.e. sulfates and carbonates) serve as substitutes for raw materials that would otherwise be mined and purchased; thereby, conserving natural resources. Any by-product that is not recycled, is disposed, which is not subject to CDR reporting.

**Reporting burden requirements/problems(s) addressed with proposed revision(s):**

- The time and resources necessary to identify the substance or substances and, in some cases, submit a PMN for the specific inorganic species or UVCB not currently on the Inventory or distributed in commerce.
- The time and resources necessary to track and report the amounts manufactured.
- These costs can be excessive and repetitive when one considers that facilities and/or processes that manufacture the same products may use slightly different raw materials, catalysts, unit sizes and process conditions, which can impact the specific chemical identity produced (so there is no cookie cutter

approach across facilities or units). In addition, these materials and conditions can change over time as companies make efforts to optimize processes.

- The CDR database would contain higher quality, more accurate data because there would not be multiple counting of the same molecule as it passed through the recycle loop.

**Under proposal, describe information that would no longer be reported/available:**

- Redundant information pertaining to the original material would not be reported repeatedly.
- Chemical substances temporarily produced and then consumed, if recycled, would not be reported.

**Under the proposal, describe the type of information that would remain available on the byproduct as manufactured and the byproduct as recycled for purposes of EPA evaluation:**

- If the generator of the inorganic byproduct sells that byproduct into commerce for uses other than those covered by this reduced reporting proposal, those would still be reported under the CDR by the byproduct manufacturer.
- Recycling of the inorganic by-product may still be subject to certain TRI and RCRA reporting requirements.
- The original chemical substance would still be reported under CDR as required. Those inorganic byproducts reused in place of the original chemical substance would not be reported.

**Conditions to be met for a self-executing exemption:**

1. The original substance has already been reported under CDR,
2. Production of the inorganic byproduct takes place in a closed system during any processing and the entire process takes place at only one site,
3. If recycled, the recycling process takes place in a closed system during any processing and the entire process takes place at only one site, and
4. Recycled substance is used by the same entity that either generated the inorganic byproduct or that needed it to be regenerated.

**Background**

**Current Regulation:**

711.10 Activities for which reporting is not required.

A person described in § 711.8 is not subject to the requirements of this part with respect to any chemical substance described in § 711.5 that the person solely manufactured or imported under the following circumstances:

- (a) The person manufactured or imported the chemical substance described in § 711.5 solely in small quantities for research and development.
- (b) The person imported the chemical substance described in § 711.5 as part of an article.
- (c) The person manufactured the chemical substance described in § 711.5 in a manner described in 40 CFR 720.30(g) or (h).

**720.30: Chemicals Not Subject to Notification Requirements**

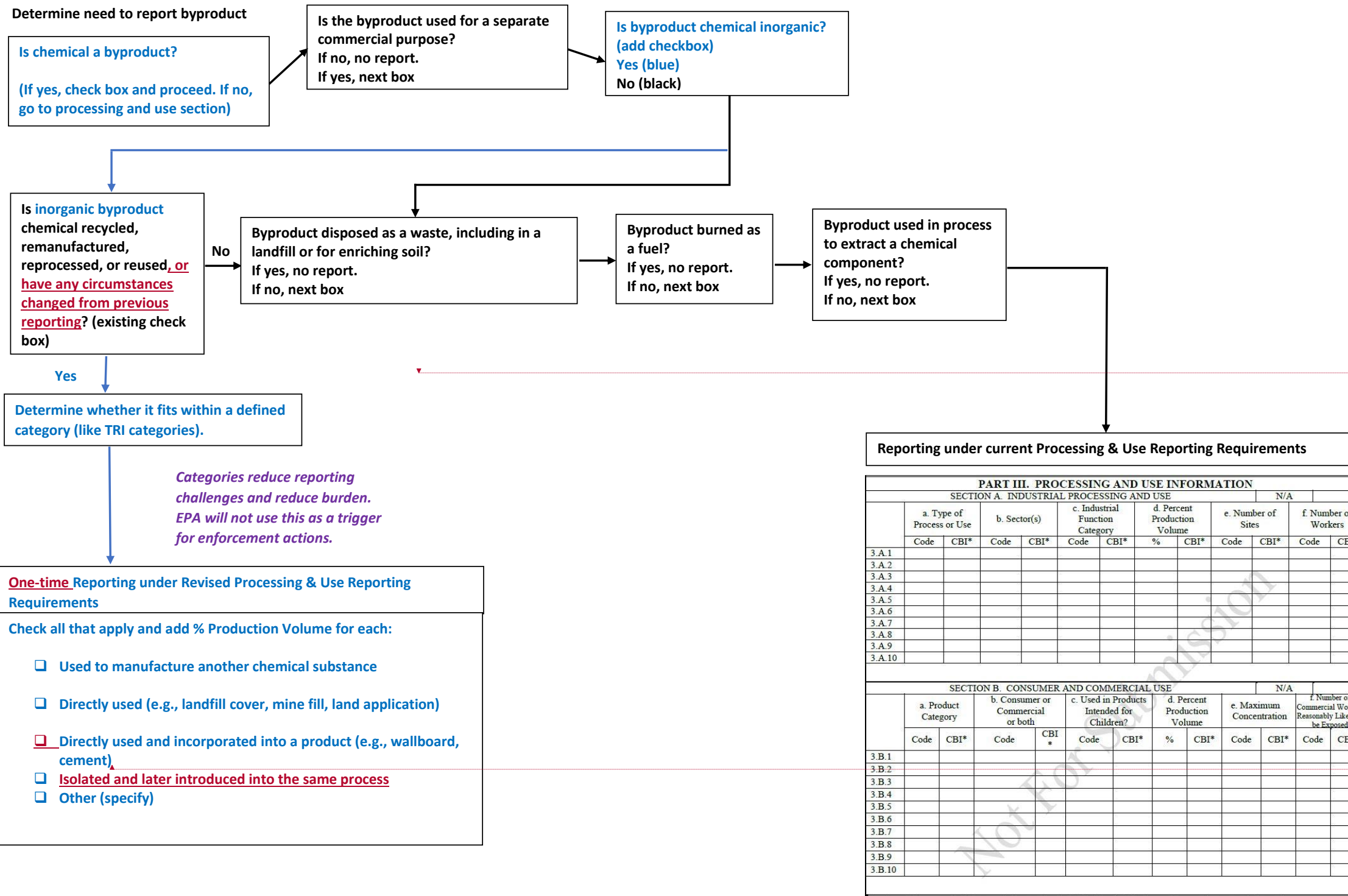
(g) Any byproduct if its only commercial purpose is for use by public or private organizations that (1) burn it as a fuel, (2) dispose of it as a waste, including in a landfill or for enriching soil, or (3) extract component chemical substances from it for commercial purposes. (This exclusion only applies to the byproduct; it does not apply to the component substances extracted from the byproduct.)

(h) The chemical substances described below: (Although they are manufactured for commercial purposes under the Act, they are not manufactured for distribution in commerce as chemical substances per se and have no commercial purpose separate from the substance, mixture, or article of which they are a part.)

- (1) Any impurity.

- (2) Any byproduct which is not used for commercial purposes.
- (3) Any chemical substance which results from a chemical reaction that occurs incidental to exposure of another chemical substance, mixture, or article to environmental factors such as air, moisture, microbial organisms, or sunlight.
- (4) Any chemical substance which results from a chemical reaction that occurs incidental to storage or disposal of another chemical substance, mixture, or article.
- (5) Any chemical substance which results from a chemical reaction that occurs upon end use of another chemical substance, mixture, or article such as an adhesive, paint, miscellaneous cleanser or other housekeeping product, fuel additive, water softening and treatment agent, photographic film, battery, match, or safety flare, and which is not itself manufactured or imported for distribution in commerce or for use as an intermediate.
- (6) Any chemical substance which results from a chemical reaction that occurs upon use of curable plastic or rubber molding compounds, inks, drying oils, metal finishing compounds, adhesives, or paints, or any other chemical substance formed during the manufacture of an article destined for the marketplace without further chemical change of the chemical substance except for those chemical changes that occur as described elsewhere in this paragraph.
- (7) Any chemical substance which results from a chemical reaction that occurs when (i) a stabilizer, colorant, odorant, antioxidant, filler, solvent, carrier, surfactant, plasticizer, corrosion inhibitor, antifoamer or defoamer, dispersant, precipitation inhibitor, binder, emulsifier, deemulsifier, dewatering agent, agglomerating agent, adhesion promoter, flow modifier, pH neutralizer, sequesterant, coagulant, flocculant, fire retardant, lubricant, chelating agent, or quality control reagent functions as intended, or (ii) a chemical substance, which is intended solely to impart a specific physiochemical characteristic, functions as intended.
- (8) Any nonisolated intermediate.
  - (i) Any chemical substance which is manufactured solely for non-commercial research and development purposes. Non-commercial research and development purposes include scientific experimentation, research, or analysis conducted by academic, government, or independent not-for-profit research organizations (e.g., universities, colleges, teaching hospitals, and research institutes), unless the activity is for eventual commercial purposes.

## Approach F – Limit Reporting for Reuse of Inorganic Byproducts



Categories reduce reporting challenges and reduce burden. EPA will not use this as a trigger for enforcement actions.

**One-time Reporting under Revised Processing & Use Reporting Requirements**

Check all that apply and add % Production Volume for each:

- Used to manufacture another chemical substance
- Directly used (e.g., landfill cover, mine fill, land application)
- Directly used and incorporated into a product (e.g., wallboard, cement)
- Isolated and later introduced into the same process
- Other (specify)

**Reporting under current Processing & Use Reporting Requirements**

PART III. PROCESSING AND USE INFORMATION												
SECTION A. INDUSTRIAL PROCESSING AND USE										N/A		
	a. Type of Process or Use		b. Sector(s)		c. Industrial Function Category		d. Percent Production Volume		e. Number of Sites		f. Number of Workers	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.A.1												
3.A.2												
3.A.3												
3.A.4												
3.A.5												
3.A.6												
3.A.7												
3.A.8												
3.A.9												
3.A.10												
SECTION B. CONSUMER AND COMMERCIAL USE										N/A		
	a. Product Category		b. Consumer or Commercial or both		c. Used in Products Intended for Children?		d. Percent Production Volume		e. Maximum Concentration		f. Number of Commercial Workers Reasonably Likely to be Exposed	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.B.1												
3.B.2												
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3.B.5												
3.B.6												
3.B.7												
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3.B.9												
3.B.10												

\*Substantiation required for CBI claims on chemical identity, site identity, and processing or use information.

Deleted: Would no longer apply to recycled inorganic byproducts; feedback is that these exemptions cause confusion and uncertainty. This change increases number of reporters, but reduces their burden when determining if they need to report. ¶

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