

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 372

[OPPTS-400106; FRL-5387-6]

#### Addition of Reporting Elements; Toxic Chemical Release Reporting; Community Right-to-Know

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Advance Notice of Proposed Rulemaking (ANPR).

**SUMMARY:** EPA intends to expand its Community Right-to-Know initiatives to increase the information available to the public on chemical use. This Advance Notice of Proposed Rulemaking is intended to give notice of EPA's consideration of this issue and to solicit comments on all aspects of chemical use and the collection of chemical use data and is an initial step in the regulatory development process. In the context of this action, EPA is considering all potential components of "chemical use." For the purposes of this Notice, the term "chemical use" refers to the information most commonly described as materials accounting data: amounts of a toxic chemical coming into a facility, amounts transformed into products and wastes, and the resulting amounts leaving the facility site. EPA believes that the collection of additional chemical use information beyond that already provided by the Toxic Release Inventory (TRI) data base would provide a more detailed and comprehensive picture to the public about environmental performance and about toxic chemicals in communities. TRI is the data base in which information collected under section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and section 6607 of the Pollution Prevention Act (PPA) is made available. EPA is considering expanding the type of information contained in this data base. A number of important concerns associated with the reporting and interpretation of chemical use information have been raised to the Agency, and EPA has determined that additional evaluation is needed before EPA can develop a proposal. In this ANPR, EPA is (1) Describing the Agency's plans to further evaluate these issues; (2) providing preliminary notice of additional public meetings; (3) requesting comment and information on issues where additional assessment is needed; (4) soliciting actual assessments that have been performed on these issues and (5) seeking public input

concerning development of regulation in this area.

**DATES:** Written and electronic comments in response to this ANPR must be received on or before December 30, 1996.

**ADDRESSES:** Written comments should be submitted in triplicate to: OPPT Docket Clerk, TSCA Document Receipt Office (7407), Office of Pollution Prevention and Toxics, Environmental Protection Agency, Rm. E-G099, 401 M St., SW., Washington, DC 20460. Comments containing information claimed as confidential must be clearly marked as confidential business information (CBI). If CBI is claimed, three additional sanitized copies must also be submitted. Nonconfidential versions of comments will be placed in the record for this action and will be available for public inspection. Comments should include the docket control number for this ANPR, OPPTS-400106 and the EPA contact. Unit IV. of this document contains additional information on submitting comments containing information claimed as CBI.

Comments and data may also be submitted electronically by sending electronic mail (e-mail) to: [oppt.ncic@epamail.epa.gov](mailto:oppt.ncic@epamail.epa.gov). Electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Comments and data will also be accepted on disks in WordPerfect 5.1 file format or ASCII file format. All comments and data in electronic form must be identified by the docket number OPPTS-400106. No CBI should be submitted through e-mail. Electronic comments on this ANPR may be filed online at many Federal Depository Libraries. Additional information on electronic submissions can be found in Unit IV. of this document.

**FOR FURTHER INFORMATION CONTACT:** Matt Gillen at 202-260-1801, e-mail: [gillen.matthew@epamail.epa.gov](mailto:gillen.matthew@epamail.epa.gov); or Christine Lottes at 202-260-7258, e-mail: [lottes.christine@epamail.epa.gov](mailto:lottes.christine@epamail.epa.gov) for specific information regarding this ANPR. For further information on EPCRA section 313 contact the Emergency Planning and Community Right-to-Know Hotline, Environmental Protection Agency, Mail Stop 5101, 401 M St., SW., Washington, DC 20460. Toll free: 1-800-535-0202, in Virginia and Alaska: 703-412-9877 or Toll free TDD: 800-553-7672.

#### SUPPLEMENTARY INFORMATION:

##### I. Introduction

##### A. Background

EPA considers Right-to-Know to be among its most effective strategies for

improving environmental performance. Facilities currently covered by the TRI have reduced their reported releases of toxic chemicals by 44 percent, or 1.6 billion pounds, since 1988. These reductions have been attributed to voluntary industry action motivated by a number of factors including: (1) The availability of TRI data for release and transfers of covered chemicals; (2) public involvement in facility and community planning; (3) flexibility in choosing reduction methods; and (4) transparency of facility performance. In the Federal Register of November 30, 1994 (59 FR 61432) (FRL-4922-2), EPA issued a final rule that expanded the chemical coverage of TRI to include 286 additional toxic chemicals; and in the Federal Register of June 27, 1996 (61 FR 33588) (FRL-5379-3), EPA proposed adding an additional seven industrial sectors to TRI. The Agency's commitment to expanding the TRI and the Right-to-Know Program is premised on its effectiveness as a tool to encourage pollution prevention, improved environmental quality, informed public involvement and public awareness of toxic chemicals that move to and through their communities.

The TRI-Phase 3 project builds on two successful strategies: Pollution Prevention and Community Right-to-Know. [In this ANPR, the title "TRI-Phase 3" is used to designate the entire chemical use right-to-know project. The "TRI" is retained in recognition that the project arose out of a TRI background, even though EPA is currently considering use of non-TRI statutory authorities.] Pollution prevention provides the framework for identifying opportunities to reduce pollution at the source through cost effective changes in production, operation, and raw materials use. It encourages companies to consider opportunities for source reduction as the preferred route to improved environmental performance. Community Right-to-Know provides the framework for informing and educating citizens so that they can participate more effectively in decisions that affect their families and communities. Community Right-to-Know is increasingly recognized as an essential decisionmaking tool for both the public and industry. Public information fosters informed environmental involvement by many different segments of society, from citizens and consumers to corporate decisionmakers. Expanding public participation motivates improved environmental performance, and over the long term promotes the integration of environmental goals with economic and social goals. In addition to these

benefits, EPA believes that materials accounting has the potential to significantly increase the utility and completeness of data that would be available to identify, evaluate, and track toxic chemicals in the workplace and community. This is important because it is at the community level where environmental problems can first be identified, and where the groups with the most at stake can come together to develop solutions to best fit local needs.

EPA believes that publicly available chemical use information shows promise for filling a number of data gaps identified by TRI stakeholders and that it could link together pollution prevention and Community Right-to-Know. Chemical use information could expand the public's ability to evaluate a range of national and community level environmental issues. Some stakeholders suggest that chemical use data may be used to assess the amounts of chemicals flowing into and through communities, the overall quantities of toxics going into products, worker safety and health issues, and facility pollution prevention performance. Chemical use data, in conjunction with existing TRI data, could also provide a more comprehensive picture of chemical use at the facility level. The more complete the understanding of use and wastestreams, the better positioned a facility is to assess process and product efficiencies and to modify use, process, or product as appropriate. Likewise, the more complete the understanding, the better positioned the public is to participate on an equal footing in environmental decisionmaking.

The TRI-Phase 3 project began in 1993, and public meetings were held in 1994 and 1995 to receive stakeholder comments. On August 8, 1995, in a memorandum to the EPA Administrator, President Clinton directed EPA to expedite Community Right-to-Know initiatives stating: "I am committed to the effective implementation of this law [EPCRA] because Community Right-to-Know protections provide a basic informational tool to encourage informed community-based environmental decisionmaking and provide a strong incentive for businesses to find their own ways of preventing pollution." The memorandum directed EPA to develop and implement "an expedited, open, and transparent process for consideration of reporting under EPCRA on information on the use of toxic chemicals at facilities, including information on mass balance, materials accounting, or other chemical use data." This ANPR is part of EPA's response to this directive.

### *B. Statutory Authority*

EPA has available a number of statutory authorities that would allow the Agency to collect chemical use data elements. Because EPA has not determined which data elements would constitute a "chemical use data set," it is premature to identify which specific authority(ies) would be used. Instead, at this time, EPA is considering a variety of strategies that could be used, individually or in combination, to expand the reporting and public availability of chemical use data. For example, the Agency might propose the addition of several data elements to expand the TRI reporting requirements established under section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. section 11023), and statutorily expanded under section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. section 13106). Alternatively, EPA might consider actions under the Toxic Substances Control Act (TSCA), the Clean Water Act (CWA), the Clean Air Act (CAA), etc. EPA is also reviewing existing use data collected under other environmental statutes and by other Federal agencies such as the Occupational Safety and Health Administration and the Department of Transportation, and could propose a strategy based on improving public access to such data. Improved public access is likely to involve some type of linkage with TRI, since it is considered the main public source of environmental data.

EPCRA section 313 requires the owner or operator of a facility at which a listed chemical was manufactured, imported, processed or otherwise used at levels exceeding the statutory thresholds, to report certain information. Among the information required to be reported about each toxic chemical is the general category or categories of use, an estimated range of the maximum amount present at the facility, and the annual quantity entering each environmental medium. Section 328 grants the Administrator general rulemaking authority to implement EPCRA. 42 U.S.C. section 11048.

Section 6607 of the PPA requires owners and operators of a facility who must report under EPCRA section 313, to also report annually to EPA certain information on source reduction and recycling. Among the information that must be reported is the amount of the chemical recycled on or off-site, the quantity of the chemical released into the environment, the quantity of the chemical entering any waste stream (or

otherwise released into the environment) prior to recycling, treatment or disposal. Facilities must also report on source reduction practices and the techniques used to identify source reduction opportunities.

Section 8(a) of TSCA provides EPA with authority to require manufacturers, importers, and processors of a chemical substance or mixture to submit such reports as the Administrator may reasonably require. 15 U.S.C. section 2607(a). This section grants EPA broad discretion in determining what information must be reported, including: categories of use for each chemical substance or mixture; estimates of the amount manufactured or processed for each category of use; a description of the by-products resulting from manufacture, processing, use or disposal of each chemical substance or mixture; and estimates of the number of workers exposed and the duration of such exposure.

EPA is currently developing proposed amendments to the TSCA Inventory Update Rule (IUR) (51 FR 21438, June 12, 1986) to require submission of information predictive of the potential for chemical exposures including data on industrial and consumer uses. These amendments of the IUR are referred to as the Chemical Use Inventory. EPA intends to use the data collected under the Chemical Use Inventory to screen chemical risks and to establish risk assessment and risk management priorities.

While, arguably, some similar information could be collected under section 8(a) of TSCA and under EPCRA section 313 and PPA section 6607, there are differences in the underlying purposes and available authorities that may make it preferable to use multiple authorities to accomplish the goal. For example, TSCA section 8(a) covers a larger number of chemicals than EPCRA section 313; however, EPCRA section 313 covers pesticides, whereas TSCA section 8(a) does not. Use of EPCRA section 313 raises fewer public access issues, but would not involve the statutory small business exclusion included in TSCA section 8(a). A further distinction is that TRI includes information from manufacturers (including importers), processors and users, whereas TSCA section 8(a) is limited to manufacturers, importers, and processors. In considering any proposed rule(s) to require chemical use information in furtherance of its Community Right-to-Know objectives, EPA is mindful of its possibly overlapping authorities and will continue to coordinate its efforts to avoid duplicative requirements.

In addition to the provisions discussed above, EPA is also considering the information collection authority available under all of the other statutes it implements, including the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. section 136 et. seq., the Clean Water Act, 33 U.S.C. section 1251 et. seq., the Clean Air Act, 42 U.S.C. section 7401 et. seq., the Resource Conservation and Recovery Act, 42 U.S.C. section 6901 et. seq., and the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. section 9601 et. seq.

EPA has received a number of comments challenging EPA's authority to collect the kind of information discussed in this ANPR under EPCRA or the PPA. EPA believes that it has a broad array of statutory authorities available to it to require reporting of data elements discussed in this ANPR. EPA is currently examining all of the statutes it implements to determine which authorities would be relevant to the collection of chemical use data and the goals outlined in this ANPR. However, until EPA determines the course of action to follow, any discussion of specific statutory authority is premature.

### C. Chemical Use and Materials Accounting Concepts and Background

"Chemical use" is a broad information category that includes qualitative (e.g., function or end-use), and quantitative (e.g., amount or material flow) components. Use data are basic facility management information and essential to understanding material use and costs. In the TRI-Phase 3 project, EPA is looking at those aspects of use related to the amounts of toxic chemicals entering and leaving a facility, along with ancillary information connecting worker activity and chemical use. The tracking of chemical throughput data is an established engineering practice for many processes, currently performed at many facilities to develop estimates for TRI reporting and to monitor the engineering efficiency of facility processes. "Mass balance" is the term used to describe the systematic collection and evaluation of throughput data. The term reflects the principle that the sum of the mass of chemical inputs (into a process or facility) should equal the sum of the outputs after all chemical changes and accumulations have been accounted for. Closure occurs when inputs and outputs match or balance (within the accuracy of the measurements). Mass balance is used as a tool for managing chemicals because lack of closure may point to the need to

examine the system for possible losses. Such losses can have important economic and environmental costs associated with them. Closure increases confidence that potential losses have been identified and accounted for. Mass balance serves a function similar to financial accounting, where inputs (income) and outputs (expenses) are reconciled on a regular basis as a routine check on financial performance.

Engineering mass balance is the most accurate type of mass balance, as it involves actual measurement of process streams. It is useful for engineering design of processes. Materials accounting is a more approximate method of reporting a mass balance. It relies on routinely collected information such as records of incoming shipments of raw materials, production records, and product composition data. While it is less accurate than engineering mass balance, it nevertheless provides useful information and is also less costly to perform. Materials accounting has been the main focus of TRI-Phase 3.

The utility of reporting mass balance information on TRI has been debated for over a decade. It was discussed during the negotiations that led to the passage of EPCRA in 1986. Proponents of mass balance data claimed that it would provide essential reference data underlying release estimates, and provide for a ledger check on TRI estimates. As such, proponents contend that chemical throughput should itself be considered a Right-to-Know issue. Opponents questioned the added value provided by materials balance data when compared to the cost, the public's need for information beyond release estimates, and the potential loss of sensitive or confidential business information.

Because this issue was unresolved at the time of passage, section 313(l) of EPCRA directed EPA to arrange for the National Academy of Sciences (NAS) to study this issue further. The resulting report, entitled "Tracking Toxic Substances at Industrial Facilities" was released in 1990. The purpose of the NAS study, as stated in EPCRA section 313, was to examine the contribution that mass balance information could make to assessing the accuracy of chemical release estimates, evaluating waste-reduction efficiency, and providing perspective on chemical management practices. The study was inconclusive as to a recommendation to pursue or to drop consideration of mass balance reporting. The NAS panel did, however, conclude that *materials accounting data*, properly validated and interpreted by persons with sufficient technical knowledge, may have better

potential for achieving the goals for the national uses listed in section 313 than *engineering mass balance data*. It went on to state that materials accounting data were not precise enough for some purposes such as checking on the accuracy of release estimates, but that these data did warrant further consideration for looking at other issues such as the reasonableness of release estimates, and for providing a better picture of waste reduction progress. Finally, the study provided a number of recommendations for future studies, many of which are reflected in EPA's requests for comment in this ANPR.

Because the NAS evaluation was completed prior to enactment of PPA, it did not evaluate the utility of materials accounting data against the current TRI data set. Availability of the Form R section 8 data may have allowed for a more definitive NAS conclusion.

TRI reporting trends clearly indicate that industry has made reductions in releases and that industry is moving up the waste management hierarchy established by PPA. However, based on 1994 TRI data, the overall level of waste generated by industry is not declining, thus raising many questions about the extent to which source reduction progress is occurring and how it should be measured. The PPA charges the Administrator with establishing standard methods for measuring source reduction, and EPA believes materials accounting data could facilitate the development and implementation of such methods. TRI currently provides the public with quantitative data on the methods of managing pollutants - recycling, treatment, and release (including disposal). It does not provide data on source reduction, even though it is the preferred national approach for improving environmental performance.

Two states, New Jersey and Massachusetts, already require materials accounting reporting. New Jersey began collection of such data in 1987 and expanded reporting beginning with the 1993 reporting year. The state uses ten data elements to collect information on inputs and outputs. Massachusetts began collection of materials accounting data in 1990 and uses five data elements to collect information on inputs and outputs. Each state also collects data on performance measures calculated from the materials accounting data. Some groups believe that the resulting data have been useful in improving understanding and measurement of source reduction progress. In addition, the availability of these data have raised awareness about related Right-to-Know issues such as the flow of toxics through communities and the potential

contribution of the product stream to environmental releases and wastes. Stakeholders have indicated that information which would allow life-cycle analysis of toxic chemicals would be useful in environmental planning. Taken together, these developments have sustained general interest in chemical use reporting over the years, and influenced EPA to pursue additional review of materials accounting.

#### *D. TRI-Phase 3 Origin and Status*

The TRI-Phase 3 project grew out of EPA stakeholder meetings held in 1993 to discuss the possible creation of a "Chemical Use Inventory" (CUI). EPA initiated these discussions based on increasing awareness of the potential value of "use" data to the Agency for chemical screening and priority-setting under TSCA. Environmental and public interest stakeholders were also interested in the concept of facility-level chemical use data as a fundamental right-to-know issue, and recommended that the Agency expand the project to put materials accounting data in the public domain. These stakeholders described TRI as the most logical place for this data, given its features and importance. Industry stakeholders question that there is any fundamental right to know about facility-level chemical use data unless there is a demonstrated use. EPA created the TRI-Phase 3 project in response to this interest and the importance of the underlying issues.

EPA prepared an initial issues paper (Issues Paper #1 - Ref. 3) and held a public meeting in September of 1994 to begin the process of exploring chemical use issues. The focus of the meeting was to learn more about both stakeholder data needs driving the interest in materials accounting and the nature of industry concerns. EPA subsequently developed a three-step approach for categorizing and evaluating TRI-Phase 3 issues and combined it with preliminary Agency findings in a second issues paper released in October of 1995 (Issue Paper #2 - Ref. 4). A report was also prepared in response to Executive Order 12969 (Report to President Clinton - Expansion of Community Right-to-Know Reporting to Include Chemical Use Data: Phase III of the Toxics Release Inventory, Ref. 6). The Agency invited additional comments in a second public meeting in October of 1995. This meeting provided opportunity for more extensive discussion on issues such as CBI concerns, and the potential for overlap with existing Agency reporting. The Agency has prepared a third issues paper to report back to stakeholders on

what the Agency heard at the second public meeting, and to describe plans for additional evaluation (Ref. 5). The issues paper can be obtained from the EPCRA hotline at the numbers listed in the FOR FURTHER INFORMATION CONTACT unit of this document, or electronically via EPA's TRI Homepage at <http://www.epa.gov/opptintr/tri>.

#### *E. Discussion of Data Elements*

EPA is considering several categories of data elements for inclusion in this use information initiative, including elements on chemical inputs, outputs, and occupational exposure indicators. By input, EPA refers to the amounts of toxic chemicals brought into or originating at a facility. By output, EPA refers to the amounts produced, transformed into other chemicals, or present in products leaving the site. EPA derived preliminary data element options from those used in Massachusetts and New Jersey, where materials accounting data is reported. Additional options were developed for occupational indicator elements. The options, first described in Issues Paper #2 (Ref. 2), are described below. They are intended to encourage public discussion.

##### *Input options*

Set A - Starting raw material inventory amount of the substance

- Amount produced on site

- Amount brought on site

Set B - Amount manufactured

- Amount processed

- Amount otherwise used

Set C - Total input amount

##### *Output options*

- Amount consumed on site

- Amount shipped off-site as (or in) product

- Ending raw material inventory amount

- Amount stored on site as or in product

##### *Occupational exposure indicator options*

Set A - Total number of workers at the facility

Set B - Total number of workers at the facility

- Number of workers potentially exposed to each EPCRA section 313 listed toxic chemical

Set C - Total number of workers at the facility

- Number of workers potentially exposed to each EPCRA section 313 listed toxic chemical

- Whether exposure assessment was performed for the chemical during the year

- Whether exposure monitoring has ever been performed for the chemical

*Materials accounting measures*  
Waste-related source reduction performance measures

- Amount of wastes prevented by source reduction, in pounds

- Annual percentage (or index)

- reduction in total wastes

- Normalization refinements

- Procedure for weighting multiple chemical uses

#### *F. Relationship to Other Agency and Administration Priorities*

EPA has received questions and comments on the value of chemical use data to the Agency, and how it might fit with other Agency priorities. TRI-Phase 3 is related to a variety of important issues that cut across the Agency. EPA's 5-year strategic plan includes "Prevention of wastes and harmful chemical releases," "Improved understanding of the environment," and "Worker safety" among its national environmental goal areas. "Pollution prevention" and "Environmental accountability" are among EPA's guiding principles (Ref. 2). EPA's responsibilities under PPA include establishing standard methods of measurement of source reduction and facilitating the adoption of source reduction techniques by business. The Agency recognizes that improving efficiency of material use, for chemicals as well as all other raw materials, is an important component of sustainable development. The President's Council on Sustainable Development recently recommended that the Federal government develop indicators of progress toward national sustainable development goals and to regularly report on these indicators to the public (Ref. 1).

EPA's role as a provider of information is central to a strategy that promotes, empowers, and broadens activity by others to protect the environment. This role must be carefully expanded if EPA is to move beyond its traditional role as regulator of first resort. Community Right-to-Know is among the most successful alternatives to command and control approaches, and EPA believes that it provides an important foundation for new alternative performance-based management systems. For example, EPA is developing programs to increase community participation and partnerships to move environmental decision-making closer to the source of problems and solutions. Community access to meaningful information is an important ingredient for the success of this approach. Agency efforts to encourage more flexible approaches, such as the Common Sense Initiative

and Project XL, also require the right set of information to measure and understand environmental results. EPA's Common Sense Initiative involves multi-stakeholder groups looking for industry-specific "cleaner, cheaper, smarter" approaches to environmental protection, and sector groups have discussed the value of materials accounting data. EPA's Project XL (for excellence and leadership) is intended to encourage innovation and flexibility in meeting higher environmental performance standards. Stakeholders in Project XL and CSI have indicated that chemical use information would facilitate progress in these projects as well. In sum, while the TRI-Phase 3 project involves a number of difficult issues, continued development of this chemical use project will have benefits across the Agency.

## II. Key Issues and Request for Information

EPA has classified TRI-Phase 3 issues into five major categories based on stakeholder comments to date. EPA encourages all interested persons to submit comments on these issues, and to identify any other relevant issues as well. This input will assist the Agency in developing a proposed rule that successfully addresses information needs while minimizing potential reporting problems associated with chemical use information. EPA requests that commenters making specific recommendations include supporting documentation where appropriate.

### A. Questions about the Premise for and Utility of Chemical Use Information

A fundamental TRI-Phase 3 issue is the usefulness and need for chemical use information. There is substantial disagreement among stakeholder groups on this question, and EPA solicits additional comments and examples. The two areas of use information are described below:

1. *Materials accounting information.* Environmental and public interest groups contend that while TRI is an extremely valuable tool, it falls short of providing the complete right-to-know picture needed to fully understand toxic chemical issues. These groups have suggested materials accounting data as the best remedy for addressing these issues. Based on stakeholder input, EPA has identified the following Right-to-Know "data gaps": (1) The need for information on the flow and use of toxic chemicals at a facility; (2) the need for tracking toxic chemicals in products; (3) better information on occupational issues; (4) the need to create a "scorecard" for measuring and

promoting pollution prevention/source reduction; (5) the lack of a ledger check on TRI estimates; (6) the need to improve TRI to serve as a better tool for regulatory integration efforts; and (7) other uses such as research and priority-setting.

Industry and trade association commenters disagree and contend that chemical use information is of limited value. These groups have presented the following arguments against the merits and need for collecting materials accounting information: (1) Chemical use reporting is based on a false premise that any type of chemical use is harmful and should be eliminated; (2) a convincing argument has not been made as to the utility of materials accounting data to the public; and (3) materials accounting data does not in fact allow more accurate measurement of source reduction progress. EPA recognizes that some companies routinely collect materials accounting data as a way of monitoring their operations. These firms use the data internally to reduce chemical losses, improve product yield, and to manage their materials. EPA recognizes that this is not a universally accepted business practice and could be more appropriate for some industries than for other industries.<sup>1</sup>

Some stakeholders from the industrial, environmental and state regulatory communities have indicated that materials accounting data are useful for looking at a variety of important environmental issues. For example, chemical inputs can be compared with existing TRI releases and wastes to examine the efficiency of facility chemical use over time. This may provide important pollution prevention insights. Knowing that 38 percent of the chemical input at a hypothetical chemical processing facility goes into the release and waste stream, and that the percentage has been increasing over time is valuable information, for facility managers, for state and EPA regulators, and for communities interested in looking at pollution prevention performance. It should be noted however, it is not yet clear to what extent the inaccuracies inherent in such data may limit its usefulness for this purpose. Supporters of the Right-to-Know Program believe that this is the best approach currently available and better than the current gap in information. Access to such information facilitates dialogue on approaches that rely on preventing the generation of

<sup>1</sup>EPA is specifically requesting comment on the costs associated with materials accounting data collection and concern associated with sensitive or confidential business information.

pollution over those that rely on more traditional end-of-pipe solutions. In the long run, the pursuit of strategies that improve efficiency are more likely to enhance the viability of affected facilities, and the success of the surrounding communities as well. Additional examples regarding the flow and use of toxics through communities and the value of product stream data can be found in EPA Issues Papers #1 and #2 (Refs. 3 and 4).

While materials accounting data may provide important insights to the Agency, the public, and to industry, EPA acknowledges that further evaluation is needed. EPA requests additional comments that provide greater detail on how the public would use materials accounting data. EPA also welcomes comments that take issue with the need for use data, or challenge its information value. The Agency will use the comments to perform a more comprehensive review of the premise for use reporting.

2. *Occupational exposure indicator information.* The manufacturing, processing, and use of chemicals also involves workers; and environmental and labor groups have recommended that data elements be included to describe this aspect of chemical use. Workers are also community members, and there is increasing interest in the link between occupational exposure and environmental performance as well. Data on the worker demographics at a facility can be viewed as part of the core data set needed to characterize a facility. The data elements describing the number of workers, providing basic estimates on the number of potentially exposed workers, and indicating the extent to which employee exposures have been assessed would enhance the usefulness of TRI. Industry commenters agree that worker exposure which may be tied to adverse effects should be monitored closely and provided to workers, but have suggested that the issue be deferred to agencies such as the Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH). Industry stakeholders have also suggested that some data are already available through OSHA and NIOSH. Preliminary discussion with these agencies indicates that they support efforts by EPA to collect this information and put it in the public domain. EPA is interested in additional commentary and examples related to occupational exposure indicator issues.

In summary, EPA requests additional comments on the premise for chemical use information and its value to the

different sectors of the public. In addition to commentary, the Agency requests that hypothetical or actual examples be submitted. EPA is also interested in comments that distinguish between direct application of chemical use data (e.g., using chemical input or output to look at the flow of toxics through a community) and derived applications where the data are combined with other information to develop a measurement (e.g., combining chemical input with release and waste data to address efficiency). Several questions are provided below:

1a. Do gaps exist in the current Right-to-Know Program? Do chemical use data serve or not serve to fill right-to-know gaps identified by stakeholders? Provide examples that will support your position. EPA is interested in perspectives ranging from the community and facility level up to the national level.

2a. Are any individual chemical use data elements viewed as more useful than others?

3a. Can facility environmental performance be judged based on existing publicly available environmental data? EPA is interested in examples where data users could/ could not judge facility performance. Is chemical use information seen as improving understanding and accountability?

4a. If chemical use information were available to the public, how would the public utilize this data? For example, what actions could a community take with a better system to track pollution prevention or the flow of toxics into and out of a neighborhood? Would there be the potential for serious misuse of the data?

5a. How have chemical use data been applied by the public in New Jersey and Massachusetts, where such reporting is already required? Has the public in other states ever requested chemical use information from facilities? If so, how was it used?

6a. What concerns are there about misuse, misunderstanding, or misinterpretation of chemical use data by the public? What is the basis for these concerns? Which specific data elements are most subject to potential misunderstandings about a facility? How should these concerns be considered in developing this initiative? EPA is also interested in any examples of misuse and misinterpretations resulting from the availability of this information in New Jersey and Massachusetts.

7a. Have industry and community organizations engaged in dialogue about issues such as pollution prevention

performance, toxics in products, flow of toxics through communities, or the need for accountability to support the use of flexible approaches to environmental protection? If so, what information was seen as helpful?

8a. How could occupational indicator data be used by various groups, including at the community level? Do other sources of data exist (e.g., OSHA's Hazard Communication Standard) that could fill this informational gap? EPA is interested in stakeholders' views on the role of TRI and its relationship to worker safety and health performance, including the number of potentially exposed workers and environmental performance, and the appropriate linkage between them.

9a. What are the views of state environmental representatives about the utility of chemical use information? What experiences have states had in measuring pollution prevention efforts? What might the advantages and/or disadvantages be of having materials accounting data collected nationally rather than at the state level? EPA welcomes state perspectives on TRI-Phase 3 issues.

10a. Should EPA conduct a national pilot program to collect materials accounting data on a limited number of chemicals as recommended by the NAS report?

11a. What methodologies are available for quantifying the benefits of chemical use data? Could the relative use levels of data from New Jersey and Massachusetts be used to develop a measure of willingness to pay for the data? EPA welcomes comments from potential users of the data on their own willingness to pay. EPA is also interested in examples from New Jersey and Massachusetts on the savings versus costs of collecting and using materials accounting data.

#### *B. Agency-wide Environmental Reporting Issues*

Industry commenters have raised several issues concerning the relationship between TRI-Phase 3 and Agency-wide reporting policies. One comment is that the Agency may already collect certain types of chemical use data under other programs, and that EPA should explore how it could integrate such data into TRI before calling for additional reporting. This perspective appears to suggest that chemical use data gaps can be addressed with improvements in internal EPA data management. Another issue is the relationship between the TRI-Phase 3 project and EPA efforts under the National Performance Review "Reinventing Environmental

Regulation" project, which includes goals for reducing reporting burdens. EPA's objective is to identify and eliminate unnecessary burden so that resources dedicated to data collection can be focused on information considered more useful. The need to reduce overall reporting burden does not preclude all efforts to expand reporting. However, given the overall need for reduction, some commenters have inquired as to how chemical use data compares in priority with other types of environmental information across the Agency. Environmental stakeholders have asserted that the need to streamline current reporting requirements should not be confused with the need to collect the appropriate set of data on facility environmental performance. These groups have expressed confidence that materials accounting data are part of any core data set needed for performance review. EPA will be evaluating these environmental reporting issues further as part of TRI-Phase 3. In the meantime, the Agency encourages interested persons to submit comments on TRI-Phase 3 reporting issues. Several questions are provided below:

1b. Which existing EPA or other Federal agency data sources do stakeholders view as providing information equivalent to materials accounting and other chemical use data? The Agency is especially interested in perspectives of facility personnel filling out environmental reports, and members of the public and environmental groups who use EPA data.

2b. Please provide examples of existing sources of chemical use information which have been or could be used to examine data gap issues such as tracking pollution prevention, the flow of toxic chemicals through communities, and product stream issues. Please provide suggestions for improving access to such data and how these data could be used.

3b. Please comment on how materials accounting data can be used as a basis for streamlining multi-media permitting or similar efforts. Would the collection of materials accounting data replace the need to collect data currently being collected by EPA? If so, which data?

4b. For all of the above, how should EPA address situations where use data from other internal data bases have value, but the scope of chemical or facility coverage differs so that the end result would be an incomplete TRI data base?

### *C. Impacts on Confidential Business Information (CBI)*

Preliminary information provided by industry groups has been helpful in clarifying the set of issues related to CBI concerns. Industry is concerned that public dissemination of chemical use data collected under TRI-Phase 3 would result in release of CBI. They believe that access to chemical use information would provide competitors with the opportunity to extract sensitive product, process and economic information about a company. They are concerned that this would, in turn, put American companies at a competitive disadvantage and cause them to lose world-wide market share.

Environmental stakeholders recognize potential release of CBI as a legitimate concern, but are less certain about the magnitude and frequency of the problem. They contend that there is no indication that existing TRI data have been used for industrial espionage. Additionally, they assert that there have been no examples where materials accounting reporting has resulted in a loss to industry, specifically in New Jersey and Massachusetts where materials accounting information is collected by the state.

EPA agrees that the potential for loss of sensitive business information is a legitimate issue that must be addressed in order for chemical use reporting to move forward. EPA requests additional information describing and listing the different types of losses that are of concern to industry, so that the Agency can perform a more comprehensive review. For example, EPA is interested in the sequence by which materials accounting and other chemical use data, by itself or in combination with other environmental data, can be used by competitors to reveal sensitive business information. EPA also seeks additional information on conditions that could either contribute to or alleviate these concerns. For example, manufacturing facilities producing large numbers of different products might not have the same CBI concerns as smaller facilities producing only a few products. The volume of products and production lines might serve to mask the use information. Similarly, a facility using a toxic chemical in a variety of processes might not have the same CBI concerns of a facility producing or using a unique chemical or a distinct manufacturing process which requires a specific chemistry.

Case reports or studies that will allow the Agency and other stakeholders to understand and verify how losses occur would be especially useful. Such

information will assist the Agency in developing common-sense approaches to CBI issues. For example, the Chemical Manufacturers Association (CMA) commissioned a study by Kline Company to develop a business profile of an actual facility using publicly available information supplemented by materials accounting data. (CMA has provided EPA with a copy and it has been placed in the docket.) The study concluded that the materials accounting data were useful for developing an overall profile, although they were considered less useful than data from Clean Air Act (CAA) permit filings. The study helps to characterize the categories of losses considered important by industry. EPA is interested in receiving similar studies, and recommends that background information be included to allow a better understanding of the basis for conclusions. EPA is interested in the relative value of each materials accounting data element for the extraction of sensitive business information, the role and contribution made by other types of environmental data, and the impact of various safeguards in protecting CBI. The Agency is also interested in any differences in CBI issues among industry sectors. EPA invites comments on the following specific questions:

1c. What business loss categories (e.g., reverse engineering of product line, revealing of cost structure) does industry associate with public disclosure of materials accounting data? How do the categories rank in importance? For each category, which data elements are involved, and what is the sequence by which the information is used by competitors to transform the data into a competitive gain?

2c. Which loss categories are associated only with materials accounting data? What additional loss categories can result when materials accounting data are combined with other environmental data (e.g., Clean Air Act or Clean Water Act permit data)? What are the other types of data, and what is the sequence by which they can be used by competitors to reveal CBI?

3c. Have any cases been identified in New Jersey or Massachusetts where CBI loss was linked to public access to materials accounting data?

4c. Which of the materials accounting data elements is of most concern? What suggestions do CBI or Right-to-Know experts have for modifying materials accounting data elements to better protect CBI while still preserving public access to relevant chemical use data?

5c. To what extent do CBI issues vary by industry sector? Preliminary information indicates that the potential for business losses might be more of an issue for chemical manufacturers than for chemical users. EPA requests comment on this question. Do sector-specific differences offer any strategies for safeguarding CBI?

6c. If other EPA data play a significant role (when combined with materials accounting data) in loss of CBI, what suggestions do stakeholders have for changes to other data systems to improve protection of CBI?

### *D. Cost Estimates*

EPA believes that some of the raw data used as the basis for materials accounting will typically be generated or used in the normal course of business by many firms. EPA is interested in identifying which data are already routinely collected, which data that might be required for materials accounting are not already collected, the steps and factors involved in transforming the raw data into chemical-specific materials accounting and other use information, and the costs associated with this process. EPA is also interested in the extent to which firms already assemble materials accounting data. In some cases, full materials accounting data may already be routinely collected. In other cases, partial data, such as chemical inputs, may be collected at a facility in order to document that they exceed the 25,000 pound a year EPCRA section 313(f)(1) reporting threshold for manufacture or process activities, and/or the 10,000 pound a year threshold for otherwise use activities. In other cases, facilities may be collecting use information because they are using mass balance methods to estimate TRI releases. Where partial materials accounting data are already collected, the Agency is interested in steps and costs associated with collecting the additional materials accounting data, such as amounts consumed on-site and amounts shipped off-site in products. EPA encourages facilities that currently report under state programs in New Jersey and Massachusetts, or that currently collect materials accounting data for their own business purposes, to submit cost information for review. Estimates that include a general facility description (e.g., manufacturer versus processor, number of forms submitted), that address other uses of the data, and that provide estimates per chemical report form will be most helpful. A list of questions follows:

1d. What are the steps involved in gathering materials accounting data,

starting with the basic cost and operations data collected in the normal course of business? Are there obstacles in collecting this information? EPA is interested in descriptions for each data element, the estimated costs for each step, and a description of the obstacles and any remedies to address identified obstacles.

2d. What would be the steps and costs for facilities that already collect and use materials accounting information?

3d. How many facilities collect basic cost and operations data that can be used to generate partial or full materials accounting data? How many facilities currently generate partial or full materials accounting data?

4d. It has been suggested that while facilities which do not currently gather materials accounting data will likely have higher costs, these facilities would also be expected to derive the greater benefit and savings offsets from the inherent value of the information. Others argue that facilities which do not currently collect such data may be those for which the data has the least value, or for which collecting it would be particularly difficult or expensive. EPA is interested in comments and examples on how this issue should be treated.

5d. Please provide existing cost estimates based on facility experiences in New Jersey and Massachusetts, or from other facilities where materials accounting data are collected as a good business practice.

6d. EPA is interested in information regarding both first year start-up costs and annual costs once a system is set up.

7d. EPA requests information on variations in cost. For example, are there any particular materials accounting data elements that are more costly than the others? How does the number of uses affect costs? How does the number of products in the product stream affect costs? Do costs differ among use sectors, especially for otherwise users who should not need to report on amounts consumed or put into the product stream?

8d. EPA requests comment on the potential costs to small businesses of collecting materials accounting data and on what factors EPA should focus in further developing this project so that these costs are minimized, e.g. facility size, employees, revenue, etc.

9d. TRI provides a number of reporting exemptions and modifications such as the alternate threshold reporting modification, de-minimis exemption, article exemption, laboratory exemption, structural component exemption, etc. How would these reporting exemptions and modifications

impact the collection and utility of materials accounting data if EPA were to expand TRI to collect chemical use information? What role could reporting exemptions and modifications play in alleviating the reporting burden to small businesses?

#### *E. Technical Collection and Interpretation Issues*

Stakeholders have raised technical questions about the mechanics of materials accounting and occupational exposure indicator reporting, and the precision and appropriate interpretation of the results. Topics range from the conceptual to the practical and include the following: (1) The activities that need to be accounted for to measure source reduction; (2) the mechanics of using materials accounting to measure source reduction, and the degree to which it improves upon the current TRI-based methods; (3) the role of normalization in the measurement of source reduction; (4) the mechanics of product stream reporting; (5) appropriate comparisons of materials accounting data between facilities; (6) the basis for estimating "potentially exposed workers"; and (7) the need for definitions for certain terms. EPA requests comments on these and other technical measurement and reporting issues. The Agency is also interested in alternative data element options and suggestions for safeguards that balance CBI and Right-to-Know. Specifically, EPA is soliciting information on the following:

1e. EPA is not aware of any major technical reporting or interpretation issues arising out of state requirements in New Jersey or Massachusetts that need to be addressed as part of TRI-Phase 3. Please provide information on any state reporting issues that should be considered relevant to TRI-Phase 3.

2e. Please provide any suggestions for additional data element options, along with rationale for why they should be considered.

3e. To what extent should EPA identify formulas that can be used to derive performance measures using materials accounting data? If some data gaps are best filled with derived measures, should EPA consider reporting of the measure instead?

4e. Are caveats needed when materials accounting data from two or more different facilities are being compared? If so, what are they?

#### *III. Plans for Evaluation and Proposal Development*

In addition to evaluating the public comments submitted in response to this Notice, EPA will also take the following

additional steps to evaluate several key issues.

#### *A. EPA Evaluation Activities*

EPA is taking steps to examine the following issues as part of its evaluation of TRI-Phase 3 issues.

1. *Comprehensive review of existing EPA data collection programs.* EPA will take a closer look at existing data bases to identify and evaluate sources of chemical use data already being collected by the Agency as well as data available from other Federal agencies such as OSHA and DOT. The purpose is to examine whether improving access to existing data might provide an effective alternative to new reporting requirements. The evaluation will include looking at the scope of facility and chemical coverage, and factors related to integration of the existing data into TRI. The review will also address: linkages between TRI-Phase 3 and the TSCA Inventory Update Rule expansion; coordination with the Agency One-Stop Reporting initiative; and the potential for using materials accounting to integrate regulatory requirements. EPA believes that TRI-Phase 3 and the TSCA Inventory Update Rule Amendments can be designed so that any overlap between them is minimal. However, the Agency will track this issue as the two projects are developed further. In addition, EPA will ask for public comment on how to minimize any overlap when the TSCA proposed rule is published.

2. *Evaluation of New Jersey and Massachusetts materials accounting programs.* EPA will review the impact that materials accounting reporting has made in these two states. EPA will look at who is using the data and for what purpose. The Agency also plans to examine the state program experience with CBI in order to learn more about the effectiveness of various approaches to protect CBI, and the potential impacts that are associated with loss of CBI. EPA also plans to examine the economic effects of the state programs, including reporting costs and qualitative and quantitative estimates of benefits from collecting, evaluating, and using the data.

3. *Evaluation of CBI issues.* EPA also plans to examine other aspects of the CBI issue in greater detail. The Agency will evaluate existing reports on this subject (e.g., the Kline Report), and will examine the relationship between specific data elements and the potential for loss of sensitive business information. EPA will also assess the adequacy and value of different mechanisms for protecting CBI.

4. *Review of occupational exposure indicator issue with OSHA and NIOSH.* EPA will continue its consultation with its occupational agency partners to discuss the utility of occupational exposure indicator information, and whether it is appropriate for EPA to collect it and make it available via TRI. EPA will also review alternative options for making this information available to the public.

#### B. Public Meetings

EPA will hold two 1-day public meetings, one in Boston, MA and one in Baton Rouge, LA to discuss the issues presented above. The tentative agenda for these public meetings will include a discussion of the issues presented in Unit II. of this ANPR. Specific information on these public meetings is contained in a Notice of public meeting published elsewhere in this issue of the Federal Register. Information from all public meetings will be placed into the TRI-Phase 3 docket.

#### C. Examination of Data Elements, Reporting Vehicles, and Formats

After reviewing public comments, internal evaluation results, and after further consideration of reporting vehicles, EPA will examine whether additional data element options can be, or need to be developed for consideration as part of any proposal. The Agency believes that careful selection of data elements and reporting features is essential to optimizing the Right-to-Know value of chemical use information while avoiding reporting problems. EPA is open to development of new combinations of data elements, and intends to examine whether additional types of reporting options and data elements might play a role in addressing concerns.

#### IV. Rulemaking Record and Electronic Filing of Comments

A record has been established for this ANPR under docket number "OPPTS-400106" (including comments and data submitted electronically as described below). A public version of this record, including printed paper versions of electronic comments, which does not include any information claimed as CBI, is available for inspection from noon to 4 p.m., Monday through Friday, excluding legal holidays. The public record is located in the TSCA Nonconfidential Information Center, Room NE-B607, 401 M St., SW., Washington, DC 20460.

Any person who submits comments claimed as CBI must mark the comments as "confidential," "CBI," or other appropriate designation.

Comments not claimed as confidential at the time of submission will be placed in the public file. Any comments marked as confidential will be treated in accordance with the procedures in 40 CFR part 2. Any person submitting comments claimed to be confidential must prepare a nonconfidential public version of the comments in triplicate that EPA can place in the public file.

Electronic comments can be sent directly to EPA at [oppt.ncic@epamail.epa.gov](mailto:oppt.ncic@epamail.epa.gov). Electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. The official record for this action, as well as the public version, as described above will be kept in paper form. Accordingly, EPA will transfer all comments received electronically into printed paper form as they are received and will place the paper copies in the official record which will also include all comments submitted directly in writing. The official record is the paper record maintained at the address in ADDRESSES at the beginning of this document.

#### V. References

1. PCSD. *Sustainable America - A New Consensus for Prosperity, Opportunity, and a Healthy Environment for the Future*. The President's Council on Sustainable Development, Washington, DC (1996).
2. USEPA/OA. *The New Generation of Environmental Protection - EPA's Five Year Strategic Plan*. U.S. Environmental Protection Agency, Washington, DC (1994).
3. USEPA/OPPT. *Issue Paper #1: Expansion of the Toxics Release Inventory to Gather Chemical Use Information: TRI-Phase 3: Use Expansion*. U.S. Environmental Protection Agency, Washington, DC (1994).
4. USEPA/OPPT. *Issue Paper #2: Expansion of the Toxics Release Inventory to Gather Chemical Use Information: TRI-Phase 3*. U.S. Environmental Protection Agency, Washington, DC (1995).
5. USEPA/OPPT. *Issue Paper #3: Expansion of the Toxics Release Inventory to Gather Chemical Use Information: TRI-Phase 3*. U.S. Environmental Protection Agency, Washington, DC (1996).
6. USEPA/OPPT. *Report to President Clinton - Expansion of Community Right-to-Know Reporting to Include Chemical Use Data: Phase III of the Toxics Release Inventory*. U.S. Environmental Protection Agency, Washington, DC (1995).

#### VI. Regulatory Assessment Requirements

Pursuant to Executive Order 12866 (58 FR 51735, October 4, 1993), it has been determined that this ANPR is "significant" because it may raise novel legal or policy issues arising out of legal mandates and the President's priorities. This action was submitted to OMB for review, and any comments or changes made during that review have been documented in the public record.

In the event that EPA decides to issue a proposed rule (or rules) to expand its Community Right-to-Know program to include additional chemical use information, EPA will need to comply with a number of additional statutory and regulatory requirements. The exact requirements will vary depending on the specifics of the proposed rule(s). However, among the additional requirements with which EPA might need to comply are the Paperwork Reduction Act, the Unfunded Mandates Reform Act, and the Small Business Regulatory Enforcement Fairness Act. In addition, EPA might need to comply with the Executive Orders 12875, Enhancing the Intergovernmental Partnership; 12866, Regulatory Planning and Review; and 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. In preparing any proposed rule(s) contemplated by this ANPR, EPA will develop the analysis necessary to satisfy these other requirements, as well as comply with the procedural steps mandated by the underlying statutes, regulations, and Executive Orders.

#### List of Subjects in 40 CFR Part 372

Environmental protection, Community right-to-know, Reporting and recordkeeping requirements, Toxic chemicals.

Dated: September 25, 1996.

Carol M. Browner,  
Administrator.

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#### 40 CFR Part 372

[OPPTS-400106A; FRL-5396-2]

#### Emergency Planning and Community Right-to-Know; Notice of Public Meetings

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of public meeting.

**SUMMARY:** EPA will hold two public meetings to receive public comment on