

Alkylphenols & Ethoxylates Research Council

Comments on November 13, 2007 Federal Register Notice Regarding EPA's Information Collection Request for the Safer Detergent Stewardship Initiative Program Docket ID Number: EPA-HQ-OPPT-2007-0274

I. INTRODUCTION AND SUMMARY

The Alkylphenols & Ethoxylates Research Council (APERC) submits these comments in response to the EPA notice (72 Fed Reg 63895-63896; November 13, 2007) seeking public comment on an Information Collection Request (ICR) that was submitted to the Office of Management and Budget (OMB) for activities associated with the Safer Detergent Stewardship Initiative (SDSI) program.

APERC is comprised of the major North American producers of alkylphenols and alkylphenol ethoxylates including nonylphenol (NP) and nonylphenol ethoxylates NPEs.¹ For more than twenty years, APERC has actively engaged in the conduct and monitoring of toxicology, ecotoxicology and environmental effects research on these compounds. APERC has a unique interest in this proceeding given that a major focus of SDSI is to promote the deselection of NP and NPE. In fact with little justification, NPE is identified as the sole example of a surfactant that is “not safer.”

APERC previously provided comments² and data to EPA that demonstrated that current uses of NPE in laundry detergents and other applications does not result in a risk to humans or the environment that should merit the Agency adopting a national deselection program. To this day, EPA has not responded substantively to the information presented.

These comments address APERC's view that the SDSI program and its associated information collection and administrative activities do not comply with the Paperwork Reduction Act provisions as articulated in Title 5 of the Code of Federal Regulations Sections 1320.8 and 1320.9. Specifically, SDSI:

- Is not necessary for the proper performance of the agency's functions;

¹ Members of the Alkylphenols & Ethoxylates Research Council include: Dover Chemical Corporation; Rhodia Inc.; Rohm and Haas Chemicals LLC; SI Group.; Texas Petrochemical LP; and, The Dow Chemical Company.

² Comments Of The Alkylphenols & Ethoxylates Research Council On The May 9, 2007 Federal Register Notice Regarding The Safer Detergent Stewardship Initiative (SDSI) Program Docket ID Number: EPA-HQ-OPPT-2007-0274 Submitted July 9, 2007.

- Is duplicative of other programs sponsored by EPA's Design for Environment (DfE) office;
- Does not use plain coherent and unambiguous language that is understandable to respondents; and,
- Imposes unnecessary burden, particularly small business entities.

Most importantly, APERC's contends that EPA has not articulated a rationale to promote a national deselection campaign directed at NPE. Other than vague statements suggesting that some surfactants have "safer" properties than others, the justification for the SDSI program is lacking. While APERC appreciates that voluntary, non-regulatory initiatives can support the Agency's mandate to promote and protect public health and the environment, such programs must be grounded on a sound technical basis. For example, APERC believes that if the EPA is going to encourage sectors of society to shift away from using one set of products to another, it is incumbent on EPA to use sound scientific risk assessment principles, as articulated in OMB's Principle's for Risk Analysis, to explain why such action is warranted. The fact that SDSI is a voluntary program should simply not excuse the Agency from employing the same scientific principles as the Agency would be required to do as part of a regulatory proceeding.

Regrettably, EPA has not put forth any information suggesting that the use of detergents or surfactants in general, or nonylphenol ethoxylates specifically, pose a risk to the environment. Furthermore, EPA does not explain why a new detergent or surfactant initiative such as SDSI is needed in addition to the existing DfE sponsored programs directed at the same products. Specifically, the DfE Formulators Initiative, the DfE Industrial and Institutional Laundry Partnership and DfE's sponsorship of the third-party CleanGredients™ database all encourage and provide recognition for the use of safer surfactants and/or detergent ingredients and there is no justification provided to support another initiative.

In fact, to the extent that environmental benefit can accrue from these other programs, it is APERC's contention that the available limited resources would be better served if it were directed at these existing initiatives rather than this new program. As currently conceived, SDSI is likely to do little more than provide a vehicle to organize award dinners and provide recognition to companies that may or may not have ever used NPEs.

While the focus of these comments are directed at the issues raised by the ICR and its Supporting Statement and related attachments, the next section briefly reviews the history associated with the development of the SDSI Program in order to put these comments into perspective. This is followed by a brief summary of the current version of the proposed SDSI Program based on a review of the ICR Supporting Statement and attachments. Finally a more detailed discussion is presented of specific concerns with the proposed ICR related to the burden of small businesses and EPA's underestimation of the burden/cost associated with the administration of SDSI.

II. HISTORY OF THE SDSI PROGRAM

In February 2006, the EPA DfE announced a proposed program called the Safer Detergent Stewardship Initiative (SDSI). SDSI was conceived to motivate companies to phase out the manufacture or use of NPE surfactants in detergents or cleaning products by providing recognition.

EPA announced the proposed SDSI Program in conjunction with the Office of Water's finalization of the Ambient Water Quality Criteria (WQC) for NP,³ a biodegradation intermediate of NPE.⁴ The "safer detergent" program focused solely on the deselection of the one ingredient -- NPE. EPA's justification for promoting an anti-NPE campaign was articulated in the Federal Register as a program necessary given that "concentrations of NP/NPE were increasing in the environment"⁵ i.e., suggesting that the program was needed to achieve the WQC for NP.

Shortly after the initial SDSI announcement, representatives from APERC and the industrial laundry industry - one of the largest users of NPE detergents - met with EPA to discuss the available science on NP/NPE. The information presented included a recently completed survey of environmental monitoring data in US surface waters that covered over a 15-year period. The monitoring data, much of which was generated by the US Geological Survey clearly showed that concentrations of NP/NPE were not increasing in US surface waters. Moreover, the information supported the conclusion that these compounds when found in the environment are at concentrations below the Agency's final WQC for NP. A summary of the science supporting the treatability of NPE in wastewater treatment plants was presented to EPA.

Additionally, the industry expressed concern about the proposed SDSI program at an EPA public meeting held on June 12, 2006. Those concerns were directed at the lack of scientific support to justify a national deselection program focused on NPEs. APERC further questioned why it was necessary to launch a new program given the various other DfE programs directed at detergents, such as the more robust Design for Environment Formulators Program⁶. At the public meeting, APERC offered several recommendations:

³ US EPA(2006) Notice of Availability of Final Aquatic Life Ambient Water Quality Criteria for Nonylphenol , Federal Register Vol. 71, No. 36 9337-9339, February 23, 2006

⁴ It is relevant to note that in developing the final WQC, EPA considered reproductive and developmental effects of NP in aquatic species. In addition, EPA's final WQC Document notes that concern about potential estrogenic effects occurs at concentrations that are greater than that associated with apical toxicological endpoints. The document states "*the ability of nonylphenol to induce estrogenic effects has seldom been reported at concentrations below the freshwater Final Chronic Value of 6.5965 µg/L.*" The final WQC for NP were 28 µg/L (fresh water, acute), 7.0 µg/L (salt water, acute), 6.6 µg/L (fresh water, chronic) and 1.7 µg/L (saltwater, chronic)

⁵ US EPA(2006) Notice of Availability of Final Aquatic Life Ambient Water Quality Criteria for Nonylphenol , Federal Register Vol. 71, No. 36 9337-9339, February 23, 2006

⁶ EPA Design for Environment Formulators Program

<http://www.epa.gov/opptintr/dfe/pubs/projects/formulat/index.htm>.

1. EPA should review the available environmental monitoring results for NP in order to assess whether there is adequate technical justification to support a national “use anything but NPE initiative.”
2. APEC advocated that if EPA finds that there is not adequate justification to endorse such a national program, then EPA should abandon the SDSI Program.
3. The industry further committed to work with the Agency to reduce levels of NP/NPE in the environment if after review of the monitoring results, EPA finds that there is sufficient justification to endorse a national deselection program.

These recommendations are restated here because they are still relevant today in the context of the SDSI program described in the November 2007 FR notice.

It is significant to note that since providing the monitoring results to EPA, EPA’s publicly stated rationale for SDSI has shifted away from a program necessary to address “increasing” environmental concentrations. Today, the only justification offered is based solely on the concept that safer surfactants exist.

III. REVISED SDSI PROGRAM (NOVEMBER 13, 2007, Vol. 72, No. 218, 63895-63896) AND SUPPORTING STATEMENT

The proposed SDSI program has evolved somewhat since the original announcement in early 2006. Two important changes have been made - the program has expanded to cover theoretically all surfactants (not just NPE) and SDSI is now directed at all surfactant containing products – not just detergents.

The SDSI Program is currently described as:

“...a voluntary program administered by EPA to offer resources and recognition to businesses involved in the transition to safer surfactants. Surfactants are a major ingredient in cleaning products such as detergents, cleaners, airplane deicers and firefighting foams. Safer surfactants are those that break down quickly to nonpolluting compounds.

It further states that the “*entities potentially affected by this action are establishments or organizations engaged in formulating, producing, purchasing or distributing surfactants or products containing surfactants.*”

A. EPA Expanded the Scope of the Proposed SDSI Program

To the extent that EPA continues to promote a SDSI program, APERC supports the decision to expand the scope of SDSI beyond its singular focus on NPE. At the same time, the FR notice does little to justify the expanded scope from “detergents” - as

highlighted in the SDSI name - to the much broader universe that includes all products containing surfactants.

There is little explanation of the differences between the SDSI program as envisioned in early 2006 and the more expanded program described in the notices published in May and November 2007. Both the recent FR notice and Supporting Statement correctly note that detergents, cleaners, fire gels and aircraft deicers contain surfactants. At the same time, the Supporting Statement suggests that the scope of SDSI is limited to products that are discharged, although there is no explanation as to what is meant by “discharge.”

The Supporting Statement states that “products such as paint and ink that also use surfactants were not included in the scope of SDSI” and notes that stakeholders suggested that EPA could drive the most significant environmental improvement at the lowest possible cost by focusing SDSI on “products whose use routinely results in their discharge to the environment.”

Nowhere within the FR notice, the Supporting Statement, or the Response to Public Comments document (Attachment C to the Supporting Statement) is the scope of the program explained. As DfE is well aware, even detergents and cleaning products are not routinely discharged to the environment directly, but typically after treatment in wastewater treatment plants.

Also, EPA has not responded to comments submitted by three parties^{7,8,9} in response to the May FR notice that recommended fire gels not be included in the SDSI program due to the fact that the use of NPEs in this application has not been shown to present a risk to human health or the environment and that fire gel products have other risk/benefit considerations. As previously noted, firefighting products are tested and approved by the USDA Forest Service for ecotoxicity as well as human safety and -most importantly - fire fighting efficacy. Since the USDA Forest Service qualifies only those firefighting products that meet all of its standards, including those for environmental impact, the inclusion of these products within the scope of SDSI will not result in any further environmental benefit and could compromise the risk to environment, human life and property due to the risk from forest fires. Therefore, there is simply no need to include firefighting products be removed from the scope of SDSI.

It is APERC’s contention that EPA not provided adequate justification for the SDSI program for detergents and there is even less support to expand the scope to cover all uses of surfactants. It is likely that there are few products and/or articles in commerce

⁷ Alkylphenols & Ethoxylates Research Council (July 2007) “Comments Of The Alkylphenols & Ethoxylates Research Council On The May 9, 2007 Federal Register Notice Regarding The Safer Detergent Stewardship Initiative (SDSI) Program Docket ID Number: EPA-HQ-OPPT-2007-0274

⁸ Turnbow, T. (July 2007) “Thermo-Gel Comments for Docket ID number EPA-HQ-OPPT-2007-0274”

⁹ Mitra, B. (July 2007) “Stockhausen Comments for Docket ID number EPA-HQ-OPPT-2007-0274”

today that have not been manufactured, formulated, processed or packaged - or in some way touched by a surfactant or a surfactant-containing product.

B. SDSI Does Not Provide a Clear Definition of “Safer Surfactants”

There is little information presented in either the FR notice or the Supporting Statement as to what the Agency considers to be a “safer” surfactant. In a brief characterization in the Supporting Statement, EPA describes safer surfactants as follows:

“Safer surfactants are surfactants that break down quickly to non-polluting compounds. Nonylphenol ethoxylates, commonly referred to as NPEs, are an example of a surfactant class that does not meet this definition. Both NPEs and their breakdown products, such as nonylphenol, are toxic to aquatic life.”

The Supporting Statement also states that the CleanGredients™ database¹⁰ is a resource for information on safer surfactants and a footnote to the application form indicates that “a class of safer surfactants is linear alcohol ethoxylates (LAE). LAEs are toxic to aquatic life, but break down quickly to non-polluting compounds.”

The Supporting Statement notes that NPE break down to NP. As EPA should be well aware, only a small fraction of NPE will break down to NP in aerobic conditions and those typically found in wastewater treatment plants. As described further below, environmental monitoring data show that concentrations of NP do not exceed EPA’s WQC except in very few locations that are associated with more general issues with pollution and as such there is an expectation that all surfactants would be a concern at these locations.

Additionally, while EPA is correct in noting that NPE are toxic to aquatic life, so are the majority of the alternative surfactants that are in use, including linear alcohol ethoxylates (LAEs). As DfE should be well aware, surfactants are all toxic to aquatic life and a comparison of the toxicity profile to aquatic life of various surfactants reveals that most have similar toxicity.

IV. RESPONSE TO SPECIFIC ISSUES IDENTIFIED IN NOVEMBER 13, 2007 FR NOTICE

A. EPA Has Not Established that SDSI is Necessary for the Proper Performance of the Agency

The SDSI program as described in the November FR notice still focuses on the hazards of surfactants rather than an assessment of the hazards or risks of formulated products. In addition, SDSI still highlights NPE surfactants, citing them as examples of surfactants

¹⁰ GreenBlue CleanGredients Database www.cleangredients.org.

that are “not safer” and providing only vague guidance about the criteria for defining “safer surfactants.”

Still to this day, EPA has not put forth a technical rationale to justify the need for voluntary initiatives that rewards companies that commit to use “safer surfactants.” The Agency has not shown that the use of surfactants in general, or NPE surfactants specifically, pose a risk to the environment.

1. EPA Has Not Provided Any Basis to Suggest that NPE’s should Be Singled Out for Deselection

SDSI’s focus on NPE surfactants as examples of “not safer” surfactants is not justified. NPE are among the most extensively studied compounds in commerce. Sufficient data about their ecotoxicity, treatability in wastewater treatment plants and environmental concentrations of NPE and their biodegradation intermediates exist to establish that their current uses do not represent a risk to the aquatic environment. Few other surfactants - including those that would be used as substitutes under SDSI - have been studied so comprehensively.

The FR notice states:

“Surfactants are a major ingredient in cleaning products such as detergents, cleaners, airplane deicers and fire-fighting foams. Safer surfactants are those that break down quickly to non-polluting compounds.”

EPA defines a pollutant as “generally any substance introduced into the environment that adversely affects the usefulness of a resource or the health of humans, animals, or ecosystems.”¹¹ According to this definition, the presence of a substance in the environment at concentrations that do not adversely affect a resource or the health of human, animal or ecosystems, should not be considered polluting. EPA has not established that surfactants of any type are the cause of adverse impacts and has not provided an assessment of the current environmental impact of any surfactants.

2. All surfactants are toxic to aquatic life and WQC and regulatory mechanisms already exist to address NPE degradants

The only rationale offered to focus on NPE is because “both NPEs and their breakdown products, such as nonylphenol, are toxic to aquatic life.” While NPE, NP as well as other surfactants can be toxic in the environment if present above an adverse concentration, the lack of evidence that such situations exist reinforces the view that there is simply no basis to expend public resources on this program.

¹¹ US EPA. (Updated 2006, October). Terms of Environment. <http://www.epa.gov/OCEPATERMS/PTERMS.HTML>.

It is well recognized that all surfactants are toxic to aquatic life. Furthermore, environmental toxicity is a characteristic expressed in terms of the concentration at which a substance produces a toxic effect. Both the FR notice and the Supporting Statement for the Request for OMB Review¹² highlight the fact that EPA published an Aquatic Life Ambient WQC in February 2006 on NP, a biodegradation intermediate of NPE. WQC are the foundation for a wide range of programs under the Clean Water Act, representing the concentrations of a substance in water that when met will protect aquatic life.

A regulatory infrastructure that extends beyond EPA exists already to address situations where pollutants are present in surface water at concentrations that exceed federal WQC and/or state Water Quality Standards. The Supporting Statement contends that SDSI will compliment the EPA WQC for NP by “encouraging the manufacture and use of safer surfactants, thus reducing the amount of nonylphenol ethoxylate surfactants and nonylphenol in streams and other water bodies.” The assumption that any current uses of NPE are resulting in environmental levels of degradants that adversely affect the usefulness of environmental resources or the health of humans, animals or ecosystems is not consistent with the current understanding of the environmental fate and effects of NP/NPE or with the available environmental monitoring data on these compounds. Moreover, the programs singular obsession on NPE/NP, fails to recognize that this by and large the only surfactant that has been fully reviewed by the Agency and a regulatory infrastructure exists through the Clean Water Act initiatives to address environmental concentrations – no such a program exists with any other surfactant or other surfactant degradation product.

3. NPE and its degradants are not persistent or bioaccumulative

NPE and their breakdown intermediates including low mole NPE, NP and nonylphenol ether carboxylates (NPEC), are not persistent or bioaccumulative. In fact, all meet the OECD definition of inherently biodegradable (> 60% ThCO₂) degradation in 28 days.^{13 14} Washington State removed NP from that state’s list of persistent, bioaccumulative toxins (January 2006)¹⁵ and Environment Canada categorized NP/NPE NOT persistent and NOT bioaccumulative (January 2006).¹⁶

4. Environmental concentrations of NP and Other Degradates of NPE do not indicate a need for concern

¹² EPA Design for Environment Group. Supporting Statement for a Request for OMB Review under The Paperwork Reduction Act (November 13, 2007)

¹³ Staples, C.A., Williams, J.B., Blessing, R.L. *et al.* (1999) Measuring the biodegradability of nonylphenol ether carboxylates, octylphenol ethoxylates, and nonylphenol. *Chemosphere*, 38, 2029-2039.

¹⁴ Staples, C.A., Naylor, C.G., Williams, J.B. *et al.* (2001). Ultimate biodegradation of alkylphenol ethoxylates surfactants and their biodegradation intermediates. *Environ. Toxicol. Chem.*, 20, 2450-2455

¹⁵ Department of Ecology, Washington State (2006) Chapter 173-333 WAC - Persistent bioaccumulative toxic substances (PBTs) - New Rule <http://www.ecy.wa.gov/laws-rules/archive/wac173333.html> .

¹⁶ Environment Canada (2005) Response to APERC’s Proposal Regarding Environment Canada’s Preliminary Categorization of Nonylphenol, Octylphenol and their Ethoxylates <http://www.aperc.org/docs/environmentcanadadecision112105.pdf>.

NPE are primarily used in applications that result in their disposal and treatment in wastewater treatment plants (WWTP) prior to entering the environment. Their treatability and fate in WWTPs has been well studied and reviewed (Melcer et al., 2007; Drewes et al., 2005; Esperanza et al., 2004).^{17,18,19} NPE are considered micro-pollutants in WWTPs due to their generally low influent concentrations, which are reported to have declined in recent years and are typically below 100 µg/ L. Effluent concentrations of NPE degradants are also low and a review of available studies indicates 90-95% removal of primary compounds. NP has been found in WWTP effluents to a lesser extent with typical concentrations reported in the very low parts per billion or below. The results of laboratory simulation and field studies show that NPE and their degradants continue to biodegrade in surface waters, sediments and soil (Melcer et al., 2007).

A study by Klecka et al. (2007),²⁰ conducted to develop a statistical understanding of exposures NPE and its degradants in US surface waters concluded that on a nationwide basis, the likelihood of surface water concentrations exceeding the chronic EPA WQC for NP is low.

Therefore, based on EPA's own definition of "pollutant" and using the NP WQC as a definition of "toxic" and/or "safe" in evaluating environmental levels of NP/NPE, it is apparent that current uses of NPE do not represent a risk to the environment in the vast majority of US waterways; therefore funding of a federal program to encourage deselection of these compounds is not justified.

The Klecka et al. study evaluated concentrations of NPE and its degradants in freshwater reported by 19 investigations, conducted primarily by the US Geological Survey, over a period of 15 years. Based on the frequency of detection in surface waters, 67% of all analytes, which also included other alkylphenol compounds, were below their detection limits. Over 99% of the samples contained NP concentrations below EPA's chronic criteria value (6.6 µg/L). Although maximum reported concentrations of NP varied with time, the average and 90th centile concentrations have remained relatively constant. Given ongoing use of NPE during the time period studied, this latter finding also supports our understanding that these compounds continue to break down in the environment after treatment in wastewater treatment plants. Further investigation shows that locations

¹⁷ Melcer, H., Klecka, G, Monteith, H., and Staples, C. (2007) Wastewater Treatment of Alkylphenols and their Ethoxylates: A State of the Science Review. Published by Water Environment Federation < Alexandria, VA www.wef.org

¹⁸ Drewes, J. E.; Hemming, J.; Ladenburger, S. J.; Schauer, J.; Sonzogni, W. (2005) An Assessment of Endocrine Disrupting Activity Changes during Wastewater Treatment through the Use of Bioassays and Chemical Measurements. *Wat. Environ. Res.* 77, 1, 12-23.

¹⁹ Esperanza, M.; Suidan, M. T.; Nishimura, F.; Wang, Z.; Sorial, G.; Zaffiro, A.; McCauley, P.; Brenner, R.; Sayles, G. (2004) Determination of Sex Hormones and Nonylphenol Ethoxylates in the Aqueous Matrices of Two Pilot-scale Municipal Wastewater Treatment Plants. *Environ. Sci. & Technol.*, 38, 11, 3028-3035.

²⁰ Klecka et al (2007) Exposure Analysis of C8- and C9-Alkylphenol, Alkylphenol Ethoxylates, and their Metabolites in Surface Water Systems within the United States, Human and Environmental Risk Assessment (in-press)

where levels of NP exceed the NP WQC are otherwise compromised and simply replacing NPE with another surfactant will not correct the broader problems. Existing federal and state regulations developed in relation to WQC and state level Water Quality Standards are in place to address such problem locations.

Since NPE and their biodegradation metabolites typically occur together in the aquatic environment as mixtures, and the different compounds have varying toxicities, Klecka et al. utilized relative toxicity values developed by Environment Canada (CCME, 2001)²¹ to assess concentrations of the NPE and its biodegradation intermediates to estimate the aggregate, NP-equivalent concentration per sample. The authors cautioned that the analysis of aggregated concentrations should be taken as a conservative estimate of exposure and concluded that over 97% of the aggregate NP equivalent concentrations were below the chronic WQC value.

B. SDSI is Duplicative of Other DfE Programs

Existing DfE programs are already in place to encourage and recognize the use of safer ingredients, including surfactants, in detergents and cleaning products. They include the DfE Formulators Program,²² the DfE Industrial and Institutional Laundry Partnership²³ and DfE sponsorship of the third party CleanGredients™ database.²⁴

1. DfE Formulators Initiative

While APERC has reservations about the Formulators Initiative, it appears considerably more robust than SDSI. Under the Formulator Initiative, the partnering company submits a confidential list of the ingredients in its formulated product. All of the product ingredients are then profiled, and if necessary, recommendations are made for “safer” substitutes for chemicals of potential concern. Assuming the formulator agrees, the company signs a Memorandum of Understanding with EPA declaring that the company will produce the cleaning product with the agreed upon ingredients. After pledging that the ingredients in the product are those that DfE recommended, the company is then able to put the DfE logo on its products.

The DfE logo is intended to represent that “each ingredient in the product has been screened by the DfE scientists and researchers for potential environmental and human health effects and that the product contains only those ingredients that pose the least concern among chemicals in their class.” DfE has reviewed and recognized numerous

²¹ Canadian Council of Ministers of the Environment (CCME) (2001) Canadian Water Quality Guidelines for the Protection of Aquatic Life: Nonylphenol and its Ethoxylates. Environment Canada Publication Number 12999. ISBN 10896997-34-1. Environment Canada, Ottawa, Ontario, Canada.

²² EPA Design for Environment Formulators Program

<http://www.epa.gov/opptintr/dfe/pubs/projects/formulat/index.htm>.

²³ EPA Design for Environment Industrial and Institutional Laundry Partnership

<http://www.epa.gov/opptintr/dfe/pubs/projects/iil/index.htm>.

²⁴ GreenBlue (2006) About CleanGredients <http://www.cleangredients.org/about>

industrial and institutional cleaning products including institutional and industrial laundry detergents. The use of a SDSI logo based on a program that requires limited scrutiny has the potential to undermine the credibility and stature of the other programs.

The DfE Formulators Initiative highlights the importance of product review and recognition based on full formula review. As characterized by EPA, the Formulators Initiative “uncovers chemicals of concern that can be masked by raw material blends or by dilution in water” and “spots negative synergies between product components.” In addition, under the Formulator Initiative, DfE has the opportunity to require partners to demonstrate that their products perform effectively.²⁵

2. DfE Industrial and Institutional Laundry Partnership

The DfE Industrial and Institutional Laundry Partnership is a part of DfE’s Formulator Initiative and incorporates a cooperative approach between detergent and other laundry product formulators to design product with improved environmental and human health characteristics.²⁶

As described by EPA, the DfE Industrial and Institutional Laundry Partnership offers important opportunities to:

- Remove polluting chemicals from formulations before they can enter the workplace and the environment.
- Multiply environmental and health benefits through the use of reformulated products at many laundry facilities.
- Advance energy and water efficiency, resource conservation, and innovative technologies.

This existing DfE program provides a forum for both formulators and laundries to learn more about the effects their ingredients might have on the quality of aquatic life, biodegradability of effluents, and worker health and safety and promote the development of safer detergents. Formulators that partner with DfE under the Industrial and Institutional Laundry Partnership are recognized by DfE for improved laundry formulations, by being allowed to use of the DfE logo on products approved by EPA under the program.

3. CleanGredients™

²⁵ US EPA Design for the Environment. (2007, March). A Discriminating and Protective Approach to Cleaning Product Review and Recognition. <http://www.epa.gov/dfe/pubs/formulat/formulator-review1.pdf>

²⁶ US EPA Design for Environment Industrial and Institutional Laundry Project. <http://www.epa.gov/opptintr/dfe/pubs/projects/iil/index.htm>.

CleanGredients™ is a third party external initiative that encourages use of “safer” detergent and cleaning product ingredients - including a module that specifically addresses surfactants.²⁷ The Supporting Statement to the current ICR for SDSI makes reference to CleanGredients™ as a source of information on “safer” surfactants. However, no explanation is provided as to how to utilize CleanGredients™ to distinguish between different types of surfactants and to discern whether one is “safer” than the other.

Since DfE has been supporting several programs directed at detergents, APERC recommends that OMB deny EPA’s ICR or require that EPA explain the relationship between these programs and what additional enhancements are provided by SDSI. It is APERC’s further contention that greater environmental benefit could be afforded if the Agency directed its limited resources to these existing environmental/public health programs

C. SDSI does not use plain coherent and unambiguous language that is understandable to respondents of its information collection activities

In the Response to Comments document EPA notes:

“one commenter recommended that EPA provide a better definition for the term ‘safer detergent’ since it may be unclear what constitutes an unsafe detergent.” EPA responded by saying *“Based on our consultations, EPA believes that the current definition is clear that NPEs are not allowed for recognition under SDSI. Also, resources, including CleanGredients, are available to aid companies as they continuously improve the ingredients in all their products.”*

Contrary to what EPA may believe, a review of the written responses in their own Consultation document (Attachment D to the ICR) shows concern about the unclear nature of the definitions of “safe” and “unsafe” surfactants are prevalent. Roger McFadden, Coastwide stated *“The definition of a safer surfactant is vague. What is the definition of a “non-polluting compound”?*

While it may be clear that NPEs are not allowed for recognition, little information presented in either the FR notice or the Supporting Statement as to what the Agency considers to be a “safer” or “unsafe” surfactant. In a brief characterization in the Supporting Statement, EPA describes safer surfactants as follows:

“Safer surfactants are surfactants that break down quickly to non-polluting compounds. Nonylphenol ethoxylates, commonly referred to as NPEs, are an example of a surfactant class that does not meet this definition. Both NPEs and their breakdown products, such as nonylphenol, are toxic to aquatic life.”

²⁷ GreenBlue CleanGredients Database <http://cleangredients.org/home>.

The Supporting Statement indicates that “a class of safer surfactants is linear alcohol ethoxylates (LAE). LAEs are toxic to aquatic life, but break down quickly to non-polluting compounds.” While EPA is correct in noting that NPE are toxic to aquatic life, so are the majority of the alternative surfactants that are in use - including LAEs. As DfE should be well aware, surfactants are by nature toxic to aquatic life. A comparison of the toxicity profile to aquatic life of various surfactants reveals that most have similar toxicity. The Supporting Statement also refers to the CleanGredients™ database is a resource for information on safer surfactants (www.cleangredients.org); however no guidance is provided to indicate the actual criteria for a “safer surfactant”. In addition, the CleanGredients™ database is a fee-based subscriber program, which may pose a barrier for small businesses.

OMB should deny EPA’s ICR since the SDSI program has not been described using clear and unambiguous language as required under 5 CFR 1320.8.

D. Collection of information for the administration of SDSI does not reduce the burden on small entities

While the ICR is focused on the time and burden to collect data, fill out application forms and conduct other paperwork relevant to the application process, OMB should also consider the time and expense burden of participating in the SDSI program more generally.

Not surprisingly, the companies that participated in consultations with EPA that had already made a switch away from NPEs (or perhaps never used NPEs) did not view either the effort to qualify for SDSI or the paperwork associated with the application to be burdensome. However, respondents in the consultation summary that currently use NPEs highlighted the cost and burden of switching away from NPE as well as the vagaries of SDSI program. As it is well recognized that it is EPA’s intention to motivate companies via the SDSI program to discontinue the use of NPEs, it is APERC’s contention that to assess the burden associated with the SDSI program, it is important for EPA and OMB to consider the burden on facilities that currently use NPEs rather than facilities that already qualify for recognition.

There is little doubt that the burden and impact of responding for these companies, many of which tend to be small and medium size operations, will be much greater than projected by EPA.

As an example, Linda Silverman, Maintex (Formulator \$20 to \$50 million) stated “*At this time our Green Products represent a very minimal amount of our actual sales. We are seeing growth in that area of our business, but to discontinue the sale of all items that are not green formulated would drastically affect our business and we would not consider such a strategy. We could not be competitive in our marketplace and it could conceivably result in a complete business failure. As much as we want to support Green Business we must also maintain our current sales level and failing to offer other products*

would present a huge negative impact. Filling out the application would not take too much time, but reformulating and committing to the process is another story entirely.”

E. EPA Has Underestimated the Burden/Cost Associated with the Administration of SDSI

EPA estimates that the total annual burden associated with the ICR is 4,986 hours; when these hours are converted to dollars using hourly labor rate associated with the various job categories, they are projected to be valued at \$248,133.

EPA’s estimate is based on the assumption that 375 applications will be submitted over the three-year life of the ICR. EPA is assuming that “about 300 participants will apply for recognition under SDSI - 150 for Partner recognition and 150 for Champion recognition – and that roughly half of the 150 participants who apply for Partner recognition (or 75) will apply at a later time for Champion recognition.”

EPA’s reporting burden is based on the assumption that there is an annual public reporting and recordkeeping burden of an average of 10 hours per response. Burden is intended to cover “the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information,” which “includes the time needed to review instructions; develop, acquire,” and provide the information.

1. The Agency Has Underestimated The Burden Associated With SDSI; EPA Should Describe The Universe Of Companies From Which Applications Will Be Submitted And Incorporate An Estimate Of The Burden Associated With Companies Reviewing The SDSI Program Whether Or Not They Submit An Application

EPA’s burden estimate is based on the assumption that there will be 375 applications submitted over the three-year life of the OMB clearance from about 300 companies seeking recognition under SDSI. While APERC has little basis to judge interest in the program, it is prudent to assume that if recognition is considered a valuable marketing tool that many more companies may apply, particularly if limited effort is involved in gaining recognition.

First, as already discussed, the full scope of the products EPA seeks to include within the SDSI program is unclear and appears considerably broader than the SDSI name implies. It has been estimated that there are approximately 2900 commercially available surfactants²⁸ for use in thousands of applications. Clearly, if the scope is expanded, EPA will need to revise its burden estimates.

²⁸ Flick, Ernest W. (1993) Industrial Surfactants (2nd Edition) William Andrew Publishing/Noyes. <http://www.knovel.com/knovel2/Toc.jsp?BookID=425>.

Even if EPA limits SDSI to its original product scope of just detergents or cleaning products, the public reporting and recordkeeping burden should be revised. Within the industrial and institutional cleaning services sector, the International Sanitary Supply Association (ISSA) represents more than 4,800 members, including 300 cleaning product manufacturers²⁹ in the cleaning and maintenance industry. ISSA has more than 3,700 member companies in the United States and Canada, which serve essentially any type of institution, business or industry.³⁰

Consider also that within the consumer products sector of the detergents and cleaning products market, the scope of SDSI is open not only to surfactant manufacturers and detergent formulators but also to distributors of these products and retail enterprises. As such the potential universe of respondents to SDSI is likely many thousands of entities. Whether or not each of these companies submits an application, it seems prudent for EPA to factor into its burden estimate the time associated with these facilities reviewing the SDSI program, considering the implications of submitting or not submitting an application and a subset actually submitting information to EPA.

For these reasons, APERC believes that EPA should factor into its burden estimate the numerous facilities that fall within the scope of “affected facilities” that will review the program, even if they will ultimately decide not to submit an application for recognition.

2. The Full Costs Associated With the Management and Implementation of the SDSI Program Should Be Considered In Assessing the Cost-Effectiveness/Benefit of the Program

The focus of the ICR is directed at the burden of Respondents collecting the required information and completing the forms required to participate in the SDSI Program. EPA has estimated that they will receive approximately 375 applications for SDSI recognition. While that burden should clearly be considered by OMB pursuant to their Paperwork Reduction Act (PRA) review, APERC maintains that both OMB and EPA should similarly consider the overall costs to EPA associated with developing and implementing the SDSI Program.

The ICR projects the Agency’s estimated burden and costs associated with the information collection activities at \$7,551. This estimate assumes a total of 12 hours of EPA managerial staff hours and 38 EPA technical staff hours will be needed to review and verify the information submitted in association with the projected 375 applications. Assuming EPA’s estimate of the applications to be submitted is correct, this means that less than 6 minutes per application will be spent by EPA’s technical staff reviewing and verifying requests for recognition.

²⁹ EPA Design for Environment Group. Supporting Statement for a Request for OMB Review under The Paperwork Reduction Act (May 9, 2007) Footnote 1

³⁰ International Sanitary Supply Association <http://www.issa.com/worldwide/index.jsp?region=1>

APERC contends that before EPA recognizes a company under the SDSI program, the Agency should ensure that such recognition is warranted, which assuredly in many instances will take more than 6 minutes/application. Simply determining that the facility is not using an NPE based surfactant should not be enough to grant recognition. Instead for this program to have any utility, EPA should be reviewing the composition of the surfactant based products used similar to the type of review EPA undertakes as part of the Formulator's Initiative. It is somewhat for these reasons that APERC fails to appreciate the benefit that would accrue from a SDSI program over the existing DfE initiatives other than the incorporation of an award dinner.

APERC further believes that to the extent EPA signals a willingness to grant recognition with limited review and oversight, is likely that there will be many more than 375 applications to SDSI; and six minutes per application does not in any way seem reasonable for the government to review and verify whether an applicant is truly only employing "safer" surfactants or more ideally, that they have transitioned to appropriate detergents/cleaners and not just focused on the surfactant.

APERC maintains that EPA should be more realistic about the time demands and other resources of reviewing applications and in doing so to ensure that the Agency staff will give each application appropriate scrutiny before providing national recognition and authorize a facility to utilize its logo to promote its product. Assuming there is environmental benefit to the SDSI Program, it is important that the Agency provide a meaningful review so as to maintain the credibility of the government's program. If, for example, recognition under SDSI is easy to obtain by many companies, it will reduce the value of the recognition in the marketplace and potentially undermine other DfE programs.

VI. SUMMARY AND CONCLUSION

In summary, APERC recommends that OMB reject EPA's ICR for the SDSI program because the Agency has not provided adequate justification of the program and the ICR does not meet the criteria as required under Title 5 of the Code of Federal Regulations Sections 1320.8 and 1320.9. As described in detail above, SDSI:

- Is not necessary for the proper performance of agency functions;
- Is duplicative of other programs sponsored by EPA's Design for Environment (DfE) program;
- Does not use plain coherent and unambiguous language that is understandable to respondents; and
- Does not reduce the burden of participation for small business entities.

Most importantly, EPA has not shown that the use of detergents or surfactants in general, or NPE surfactants specifically, pose a risk to the environment. Furthermore, EPA does not justify the need for a new detergent or surfactant initiative in addition to the existing

DfE sponsored programs directed at the same products. Specifically, the DfE Formulators Initiative, the DfE Industrial and Institutional Laundry Partnership and the DfE program's sponsorship of the third-party CleanGredients™ Database all encourage and provide recognition for the use of safer surfactants and/or detergent ingredients. Since these programs are directed at promoting the use of safer surfactants and detergents, greater environmental benefit could be afforded if the Agency directed its limited resources to these existing environmental/public health programs.