SUPPORTING STATEMENT FOR COLLECTION OF
INFORMATION UNDER THE INDUSTRY STUDIES PROGRAM
CHLORINATED ALIPHATICS INDUSTRY

A. JUSTIFICATION

1. IDENTIFICATION OF THE INFORMATION COLLECTION

The U.S. Environmental Protection Agency (EPA) currently is conducting an industry study to establish an information data base with regard to hazardous waste generation and management by the chlorinated aliphatics industry to support a goal of more effective regulation under Sections 3001 and 3004 of RCRA (42 U.S.C. 6921 and 6924). Collection of this information is authorized by Section 3007(a) of RCRA (42 U.S.C. 6927). EPA has prepared and is submitting an information collection request (ICR) to obtain clarification of updates to the RCRA Section 3007 questionnaire surveys and conduct site visits for the chlorinated aliphatics industry targeted under the Hazardous and Solid Waste Amendments (HSWA) enacted on November 8, 1984.

The Industry Studies Program has been conducting RCRA Section 3007 questionnaire surveys and site visits for various industries over the past nine years under OMB #2050-0042. The information acquired through these efforts has contributed to the effective development and implementation of the hazardous waste regulatory program. EPA now is seeking to refine this ongoing data collection effort with respect to the chlorinated aliphatics industry.

On December 9, 1994 the U.S. Environmental Protection Agency and Department of Justice signed a proposed settlement agreement in *EDF v. Reilly*

establishing an extensive series of deadlines for, among others, promulgating and in some cases proposing RCRA rules and for completing certain studies and reports. This settlement agreement includes completing HSWA listing determinations and land disposal restrictions (LDRs), as specified in Sections 3001(e) and 3004(g)(4) of the Resource Conservation and Recovery Act (RCRA). To meet the schedules set forth in this settlement agreement, the Agency must simultaneously investigate several RCRA program areas for each industry. Before 1992, LDRs and capacity assurance investigations were completed three to ten years after new listing determinations were promulgated. LDRs and capacity determinations now must be promulgated within six months of any listing determinations. To achieve this schedule, information must be collected simultaneously to support listing, LDRs, and capacity investigations.

In order to collect information effectively from the chlorinated aliphatics industry, several instruments and mechanisms will be employed. The main instrument used to collect information is the RCRA Section 3007 questionnaire. This instrument had been tailored to the chlorinated aliphatics industry being surveyed, and had been sent out initially in 1992. In 1997, EPA sent out requests for updated information to all facilities that had received the questionnaire in 1992. Although EPA does not anticipate needing any further surveys or updates for the chlorinated aliphatics industry, EPA may need clarifications of the information from the previously conducted survey and updates.

Because the information required for each industry varies in terms of detail and accuracy, EPA has developed three types of data collection mechanisms, including the RCRA Section 3007 questionnaire, pre-questionnaires, and site visits. These tools are designed to provide an accurate

picture of the waste generation patterns in an industry group while minimizing burden placed on that industry. Of these, EPA anticipates that further site visits and possibly clarifications of the questionnaire updates may be needed for the chlorinated aliphatics industry, as follows.

- Clarification of Updates to the RCRA Section 3007 Questionnaire Information. From questionnaires sent out in 1992, EPA has some data of varying quality available for this industry. This information is somewhat dated and individual items, such as the annual quantities of waste generated, must be updated. Facilities in this industry have received a tailored version of the RCRA Section 3007 questionnaire via the mail. When EPA has completed the review of these updates, clarification of this information may be needed.

- Site visits to individual facilities. EPA will select a sample of facilities for site visits for the purpose of obtaining samples and conducting sample analysis. Information collected from site visits will supplement previous site visits, sampling, and RCRA Section 3007 questionnaire information that has been collected. The number of sampling and analysis efforts will be limited based on resource availability. The Agency estimates that approximately 3 sampling and analysis site visits will be necessary during the next 3 years.

The effective listing of hazardous wastes is dependent on an extensive information base that includes the generation, composition, and management of wastes by targeted industries. The data collected from the Industry Studies Program will assist a number of EPA offices in the development of hazardous waste identification and control regulations. Specifically, the data from the RCRA Section 3007 questionnaires and updates will be used by the offices to support engineering analysis aimed at identifying industrial sectors that employ specific production processes generating waste streams being studied by EPA. The data also will be used to develop an assessment of risk associated with the waste. In addition, the data will be used to characterize process residuals in

terms of physical forms, typical composition range, pH, and other physical/chemical parameters.

Within six months of promulgating a hazardous waste listing, the land disposal restrictions (LDR) for a newly listed waste must be promulgated. Waste management information obtained from the Industry Studies Program also will be used to determine waste specific treatment methods and to support the evaluation of specific LDR requirements. The data from the questionnaires are best suited for conducting engineering analyses but may be used to support other types of analyses, such as regulatory impact assessments, economic impact assessments, capacity, and risk analyses.

The data collected from this industry involve a census of facilities and, therefore, are representative of the population of establishments being studied by EPA. Consequently, the data on this industry can be used for developing national estimates on the number of facilities generating a waste stream and quantities of waste type generated.

Costs for this information collection are summarized in Exhibit 6-4. The total number of respondents is 25 at an estimated industry cost of $19,578 through 2001.

Finally, the information supports the evaluation of the current hazardous waste identification framework. Through the information collection, EPA is better positioned to complete listing decisions and to develop a new approach to defining hazardous waste characteristics.

2. NEED FOR AND USE OF THE COLLECTION

2.1 Need and Authority for the Collection

2.1.1. Listing

RCRA Section 3001(b)(1) (42 U.S.C. 6921) authorizes the Agency to promulgate regulations identifying the characteristics of hazardous waste and listing particular hazardous wastes. Specifically, RCRA Section 3001(b)(1) states *"...the Administrator shall promulgate regulations identifying the characteristics of hazardous waste, and listing particular hazardous waste (within the meaning of section 1004(5)), which shall be subject to the provisions of this subtitle. Such regulations shall be based on the criteria promulgated under subsection (a) and shall be revised from time to time thereafter as may be appropriate."*

RCRA Section 3001(e)(2) (42 U.S.C. 6901) states that *"the Administrator shall make a determination of whether or not to list under subsection (b)(1) the following wastes: Chlorinated Aliphatics, Dioxin, Dimethyl Hydrazine, TDI (Toluene Diisocyanate), Carbamates, Bromacil, Linuron, Organobromines, solvents, refining wastes, chlorinated aromatics, dyes and pigments, inorganic chemical industry wastes, lithium batteries, coke byproducts, paint production wastes, and coal slurry pipeline effluent."*

The aforementioned proposed EDF consent decree includes a requirement that EPA promulgate a listing determination for the chlorinated aliphatics industry listed above under RCRA Section 3001(e)(2)(42 U.S.C. 6901). An aggressive and detailed schedule for performing this and related regulatory

actions is included in this court order for each of the wastes under consideration. A copy of this consent decree is included as Appendix A.

The Agency has the authority to collect data from industries under RCRA Section 3007(2) (42 U.S.C. 6927), which specifically states that *"any person who generates, stores, treats, transports, disposes of or otherwise handles or has handled hazardous wastes"* is required to *"furnish information relating to such wastes"* upon EPA request. This information request can be made *"for purposes of developing or assisting in the development of any regulation...."*

EPA has the authority pursuant to RCRA to promulgate regulations identifying hazardous wastes; however, in order to list a waste, EPA requires specific detailed information on the characteristics, volume, and hazardous constituents of waste generated, as well as the current waste management strategies employed by industry. In addition, the Agency must characterize the potential risks presented by each waste considering likely waste management, release and transport pathways, attenuation mechanisms, resulting exposures for various environments and species, and the hazard created by those exposures. These analyses ensure that any regulatory action is fully supported by risk assessment and that each listing action results in significant environmental protection. For the industry specified in this request, EPA does not have all of the information needed to evaluate and promulgate a listing. In order to complete the evaluation of this industry, EPA will require additional information, which only can be collected through RCRA Section 3007 questionnaires updates and site visits.

2.1.2. Land Disposal Restrictions and Capacity

The Hazardous and Solid Waste Amendments (HSWA) to the RCRA require EPA to make a land disposal prohibition determination for any hazardous waste that is newly identified or listed after November 8, 1984 [RCRA Section 3004(g)(4); 42 U.S.C. 6924(g)(4)]. EPA intends to use the information gathered in the questionnaire to support its rulemaking activities under 40 CFR Part 268, the land disposal restrictions. The same settlement agreement mentioned above for the listing program (*EDF v. Reilly*) requires promulgation of land disposal restriction treatment standards for future listings within six months of finalization of a hazardous waste listing.

When EPA restricts a hazardous waste from further land disposal, it also must set levels or methods of treatment that substantially diminish the toxicity of the waste or substantially reduce the likelihood of migration of hazardous constituents from the waste so that short-term and long-term threats to human health or the environment are minimized [RCRA Section 3004(m)(1); 42 U.S.C. 6924(m)(1)]. Before EPA can restrict a particular hazardous waste from further land disposal, it must demonstrate convincingly that adequate capacity exists for the alternative hazardous waste treatment established for that waste. If adequate treatment/recovery capacity for a specific waste does not exist, EPA then must be prepared to grant national capacity variances on a waste-specific basis until adequate alternative management capacity exists or two years, whichever is sooner [RCRA Section 3004(h)(2); 42 U.S.C. 6924(h)(2)].

For those industries specified under HSWA and under *EDF v. Reilly*, land disposal restrictions and the associated capacity assurance determinations must be promulgated within six months of any listing determination.

2.1.3. Risk Assessment

One section of the survey instrument requires that information collected from these surveys under the exposure/risk assessment section be used to support the exposure assessment portion of the listing determination by refining input parameters for the fate and transport models used in determining risk to human health and ecological receptors. In the previously approved ICR, the Agency added a number of new questions to the survey instrument because of a modification of the risk assessment methodology. Recently, both EPA's Science Advisory Board and OMB have called for the improved use of science in risk assessments. In comments on the proposed Hazardous Waste Identification Rule (HWIR) in 1992, OMB stated that "instead of making arbitrary policy choices for the boundaries of certain parameters and waste stream characteristics,... we urge EPA to gather information." OMB called for the Agency to use readily available scientific data to improve risk assessments and consider all reasonable pathways of exposure when setting thresholds. Agency policy directs the assessment of both high-end and central tendency risks when conducting risk assessments; data on each facility within an industry are used to generate the distributions for these estimates. These refinements in risk assessments, coupled with a rising concern about ecological and residual environmental risks, have led to intensified efforts to assess and characterize the priority pathways for both human health and ecological risks from wastes under

study. Questions thus are being asked to determine critical pathways and parameters specific to the characteristics of an industry rather than using default assumptions on model inputs.

Data on the range of potential risks from an industry, based on the distribution characteristics of waste management and facility locations, reduce the uncertainty associated with risk assessment; in the absence of such data, general assumptions about certain parameters must be made. Thus, the data that has been collected from these surveys will help the Agency in refining generic models of waste management and release conditions of wastes in specific industries. The combination of information on physical aspects of waste streams and management units; types of, and data from, monitoring programs; and environmental characteristics of facility sites will provide data for defining the exposure pathways and estimating the movement and concentration of waste constituents through the environment around facilities. All of these factors will contribute to lower uncertainties in the final risk assessments.

2.2 Use/Users of Data

The data that has been collected under the authority of RCRA Section 3007 will be used specifically for the following purposes:

- to summarize waste quantities and management practices of the chlorinated aliphatics industry as requested by various offices;
- to provide the basis for refined exposure and risk modeling used to make listing decisions;

- to identify waste streams that should be listed under 40 CFR 261.31, 261.32 and 261.33;

- to develop engineering analyses, background documents, and economic impact analyses in support of new listings; and to give industry the flexibility to sustain environmentally sound economic development and still promote source reduction and recycling in new listings;

- to provide baseline data for regulatory impact analyses; and

- to determine the supply of and demand for hazardous waste treatment, storage, disposal, and recovery capacity in order to support effective regulation under Section 3004 of RCRA (42 U.S.C. 6924).

The primary user of this information is the OSW Hazardous Waste Identification Division, which is responsible for fulfilling most of the aforementioned legislative and judicial mandates. Other Agency groups using the data include a number of branches and organizations within OSW. OSW's Hazardous Waste Minimization and Management Division will use the data to determine waste-specific treatment methods, to support the evaluation of specific LDRs requirements, and to assess the availability and demand for hazardous waste treatment capacity and potential waste minimization opportunities. Other OSW groups have found the collected data to be a primary source of industrial Subtitle D (non-hazardous) waste characterization data.

The data under this request may be claimed confidential business information (CBI) data and, therefore, would not be available to the public-at-large unless presented in aggregate numbers. Since the information will be used to develop and implement hazardous waste policy and rulemaking, it will

be "published" only as generic information necessary to support a rulemaking. However, the collected information will be used by contractors, cleared to handle CBI data, in assisting EPA in its listing efforts.

3. THE RESPONDENTS AND THE INFORMATION REQUESTED

3.1 Respondents/SIC Codes

EPA will be surveying the chlorinated aliphatics industry and waste types targeted for investigation by Congress or court orders, as discussed in Section 1. The SIC code for the chlorinated aliphatics industry is 2869.

A number of individuals at any given facility are capable of responding to the requests to provide clarifications to the RCRA Section 3007 questionnaire updates. The cognizant officials are generally environmental and/or operation managers who are responsible for product/process operations. These individuals may not actually provide the clarificationsto the RCRA Section 3007 questionnaire update or be involved with the site visit; however, they have the ultimate responsibility for accurate completion and review/certification of the questionnaire update. Other individuals likely to be included in the completion of the questionnaire updates include anyone familiar with the product and process operations at the facility. These individuals typically will include a plant or process engineer, a process chemist, a waste management engineer, an attorney, and operations personnel necessary for the accurate completion of the form.

3.2 Information Requested

3.2.1. Description of the RCRA Section 3007 Questionnaire Instrument

The questionnaire was sent out in November, 1992, and all responses received by March, 1993. Although this ICR does not request authorization to conduct a new RCRA Section 3007 survey, some data from this survey and the subsequent updates of 1997 may need to be clarified.

3.2.2 Strategy Employed for the Chlorinated Aliphatics Industry

Update of RCRA Section 3007 Questionnaire

Requests to update the RCRA Section 3007 questionnaire have been addressed to facilities for which EPA needed more current information. However, there still may be a need for additional clarifications prior to the rulemaking. If questions arise during the EPA review of the update, respondents will be required to answer any follow-up questions.

Site Visits

When a facility meets certain requirements of size and type of waste stream, EPA will conduct a site visit to collect samples and conduct analyses. This activity verifies the accuracy of the data collected. At facilities where a site visit is scheduled, certain facility personnel can be involved heavily in preparation for the visit. Such personnel will participate in pre-sampling preparation, which includes a review of the preliminary engineering analysis information developed by EPA and the gathering of information requested. Generally, an internal meeting will be held at the facility to discuss the facility response. In addition, EPA will

hold a pre-sampling meeting with the facility to discuss data gaps and to verify management practices.

During the actual waste sampling visit facility personnel are expected to accompany and assist EPA in all sampling efforts. This provides the facility personnel the opportunity to witness the sampling effort and to obtain sample splits when desired. For the chlorinated aliphatics industry, these site visits are expected to require approximately 4-5 hours on site at the facility.

Finally, the respondents are involved in a review of all sampling results, which will be submitted to EPA for review. The facility personnel will review all information recorded and the analytical results corresponding to the samples obtained during the visit. An internal company meeting most likely will take place to discuss the information and analytical results received and to discuss the company response to the effort. The facility will receive a copy of EPA's sampling and analytical results at no direct costs.

EPA is not requesting or requiring respondents to collect any additional information under the two schemes outlined above. Responses are to be based on currently available data. The types of information being requested are maintained as part of normal business practices in the chlorinated aliphatics industry being surveyed. Therefore, minimum effort should be required to gather and compile the information sufficient to provide adequate response to any question posed.

No facility will be requested to perform any special analysis or tests for any of the data collection efforts. If a facility does not know the response to a question and does not have the information readily available, the facility is to use the best engineering judgement of qualified personnel to provide a response.

4. THE INFORMATION COLLECTED - AGENCY ACTIVITIES, COLLECTION METHODOLOGY AND INFORMATION MANAGEMENT

4.1 Agency Activities

The Agency activities can be divided into three major phases. The first involves the development of a screening effort to identify facilities through the use of pre-questionnaire results and subsequent tailoring of the RCRA Section 3007 questionnaire to elicit information unique to each industry. The second phase involves mailing out and tracking the receipt of questionnaires to ensure a high compliance rate. Finally, EPA will perform engineering quality assurance reviews on the questionnaires received. For the chlorinated aliphatics industry, the initial questionnaire and a number of site visits were completed in 1993. Since then, a number of additional site visits and questionnaire updates have been completed. The purpose of this ICR is to collect the necessary additional samples, and to request additional information of the facilites as needed.

To assure that the desired response rate is achieved, telephone or letter follow-up efforts will be conducted. These follow-up efforts will be designed to obtain a maximum response rate. Telephone follow-up efforts also will be

conducted to clarify inconsistent responses or to obtain missing responses noted by EPA during review.

Currently, all the questionnaire updates have been completed and received by EPA, and all of the questions and answers are being reviewed to ensure the technical integrity of the responses. After the technical review, additional telephone or letter follow-ups may be necessary to procure technically correct and consistent information. Data received from the questionnaire updates will be entered and managed in an intra-Agency database known as the Industry Studies Database.

All requests for confidentiality must be acknowledged and the proper steps taken to provide appropriate protection. The Agency will handle all such requests in compliance with the CBI Security Plan (Appendix B). Protected CBI data, along with all other data collected, must be stored appropriately. CBI data must be stored in such a manner that it remains protected but accessible to those cleared for and requiring use of it.

Finally, the Agency must participate in conducting site sampling visits. Sampling visits involve pre-trip planning and preparation, participation in on-site sampling and documentation, and follow-up efforts that entail information and analytical result review.

4.2 Collection Methodology and Management

Each questionnaire updateis being reviewed by an engineer for technical integrity and completeness of responses. Engineers performing these technical

reviews will identify any major problems and contact the respondents for clarification or additional information required for questionnaire completion.

4.3 Small Entity Flexibility

Based on information collected by EPA under previous ICRs concerning the chlorinated aliphatics manufacturing industry, there are no small entities affected by the information collection activities requested under this ICR.

5. NONDUPLICATION, CONSULTATIONS, AND OTHER COLLECTION CRITERIA

5.1 Nonduplication

The purpose of the RCRA Section 3007 questionnaire and the update is to collect information on wastes that are not currently regulated as hazardous. For such wastes, there is little available data. Any data that is present will be utilized whenever possible and will not be duplicated in further data collection efforts.

Several EPA information sources were examined, particularly those maintained by OSW. The information sources listed below contain data that characterize regulated hazardous wastes:

- Resource Conservation and Recovery Information System
- Hazardous Waste Biennial Reporting System
- Treatment, Storage, Disposal, and Recycling Survey
- Hazardous Waste Generator Survey
- Toxic Release Inventory (TRI) Database.

Although the TRI database may contain information on industrial waste streams not listed as hazardous under RCRA, the information does not include a description of the production processes employed or the generation of particular waste streams, nor does it provide detailed information on the quantity of the waste streams produced. Finally, TRI data are reported only by industries meeting specific criteria in select SIC codes, thus limiting the range of facilities reporting. Similarly, Biennial Reports provide information on the type and quantity of waste streams (state and federal hazardous wastes) but do not provide a description of the waste matrix or the production and generation processes involved.

Existing information sources that specifically contain characterization information on industrial non-hazardous waste have been examined and were found to be limited in scope. The 1986 EPA "Industrial Subtitle D Screening Information" contains only data describing the quantities of industrial non-hazardous waste managed and the number of units used to manage the waste. Similarly, the EPA "Summary of Data on Industrial Non-hazardous Waste Disposal Practices" reports on industries that manage non-hazardous industrial waste and the quantities and types of units used. Neither of these data sources contain the process and waste characterization data needed by the Industry Studies Program. RCRA Section 3007 questionnaire updates will be used to collect information that is deficient in these available resources yet is critical to proper characterization of industrial processes and the wastes they generate.

5.2 Consultations

Consultation with industry respondents regarding the RCRA Section 3007 Questionnaires is an ongoing process. Over the past 15 years many versions of the RCRA Section 3007 questionnaire have been circulated throughout industry. Questions and responses received during the past three years were reviewed, and the questionnaire was modified accordingly. Extensive consultations with relevant trade associations and corporations within each industry are conducted during the development and refinement of the instrument prior to its submission to OMB for approval and distribution. For example, consultation took place between EPA and the chlorinated aliphatics industry including the Halogenated Solvents Industry Alliance of the Chlorine Institute and the Chemical Manufacturers Association. In addition, the experience gained in evaluating RCRA Section 3007 questionnaire responses, as well as the comments received from the respondents, have indicated the strengths of the questionnaire and are the basis for the present questionnaire. This process has resulted in significant revisions of the survey instrument and has helped to minimize the burden on industry in completing the RCRA Section 3007 questionnaire, as well as the updates.

5.3 Effects of Less Frequent Collection

Although the RCRA Section 3007 questionnaire survey was a one-time data collection effort, information needed to be updated periodically. The updates entailed the completion of a partial questionnaire that only included questions concerning the information required to be updated, such as waste type and quantity information. Any clarifications needed will focus on these updates.

5.4 General Guidelines

Because the chlorinated aliphatics industry had been surveyed previously in 1993, and updates were completed in 1997, the facilites only will be requested to clarify this previously collected information. No special records must be maintained by the respondents to complete these clarifications. Questions are phrased in a manner that is consistent with the respondent's recordkeeping format. Only available information is required and, when available information is insufficient to complete questionnaires, respondents may rely on engineering judgement to provide responses. Respondents who are grantees do not have to submit or maintain information beyond that which is required under OMB Circulars A-102 and A-110.

The data collection efforts being conducted under this ICR are not statistical surveys.

Some respondents may consider certain information on the questionnaire as CBI data. The Agency developed a RCRA CBI Security Plan to handle the RCRA CBI (CBI) data collected through the RCRA Section 3007 Questionnaires. When CBI protection is requested by a respondent, requests will be analyzed and, where warranted, protection will be provided. The CBI Security Plan is found in Appendix B.

5.5 Confidentiality and Sensitive Questions

5.5.1 Confidentiality

The law has provided standards, responsibility, and accountability for the control and security of documents and computer systems that contain CBI data under the following federal statutes and regulations:

- 42 U.S.C. 6927(b), Disclosure of Data (RCRA)
- 5 U.S.C. 552, Freedom of Information Act
- 18 U.S.C. 1905, Disclosure of Confidential Information
- 40 CFR Part 2, Confidentiality of Confidential Information
- 41 CFR Part 15, Public Contracts and Property Management

Several contractors are involved in supporting this effort. Each is cleared to handle CBI data and has an established security plan to ensure that only individuals and contractors cleared to handle CBI data have access to any CBI materials. The contractors' CBI security plan includes the following:

- A complete description of secured areas.
- Specific CBI procedures and responsibilities.
- All forms designed for the receipt, indexing, tracking, destruction, and employee confidentiality relating to CBI information.
- A computer security plan.
- Procedures for screening business information for claims of confidentiality.
- Confidentiality agreement for contractor employees upon termination or transfer.
- Destruction of CBI materials upon approval.

5.5.2 Sensitive Questions

No questions of a sensitive nature as defined by the Privacy Act of 1974 and OMB Circular A-130 will be asked of any respondents.

6. ESTIMATING THE BURDEN AND COST OF THE DATA COLLECTION

6.1 Estimating Respondent Burden

EPA has estimated the burden for the two data collection strategies. The first data collection activity involves clarifications of existing updates of RCRA Section 3007 information for the chlorinated aliphatics industry. For this data collection activity EPA estimates that a respondent will require an average of 20 hours.

The second data collection activity entails conducting site visits at a sample of facilities. EPA estimates that for this activity a respondent will need an average of 16 hours to prepare and participate in a site visit.

All estimates are based on the Agency's past experience with administering the RCRA Section 3007 Questionnaires and site visits, as well as on other data collection activities involving environmental engineering data from facilities. Exhibit 6-1 in Appendix E presents burden hour estimates by data collection activity broken down by respondent activity and labor category.

Exhibit 6-1 Estimated Burden Hours for Data Collection
Chlorinated Aliphatics Industry Survey and Site Visits

Respondent Activity	Labor Category						
	Environmental Engineer	Lawyer	Process Engineer	Process Chemist	Operation Personnel	Survey Reviewer	Total
Review and Sign-off							
- Legal/Managerial Review	10.9	0.8		0.6	0.7	3.6	16.6
- CBI Justification		1.0	2.4				3.4

Total Hours for Survey	**10.9**	**1.8**	**2.4**	**0.6**	**0.7**	**3.6**	**20.0**
Site Visit (Selected Sites)							
- Prepare for, secure access and escort sampling team	8.0		4.0	2.0	2.0		16.0
Total Hours for Site Visit	**8.0**	**0.0**	**4.0**	**2.0**	**2.0**	**0.0**	**16.0**

6.2 Estimating Respondent Costs

For each of the activities described in 6.1, EPA has estimated the averaged associated costs. Again, the costs will vary depending on the type of data collection activity in which a facility may participate. The more time-consuming and labor- intensive the activity, the higher the estimated cost to the respondent.

EPA estimates that a facility will spend, on average, approximately $721 to clarify the existing updates to the RCRA Section 3007 questionnaire information. This activity presents a lower cost burden to the respondent since only a portion of the information contained in the RCRA Section 3007 questionnaire will be requested, and information requiring a clarification will be limited.

EPA estimates an average cost of $522 per facility to prepare and participate in a site visit. This activity's cost is due to the effort involved in pre-sampling visit preparation, actual participation in site sampling visits, and review of sampling visit results.

The total costs for respondents are broken down by data collection activity and labor category and are presented in Exhibit 6-2. Exhibit 6-2 includes loaded labor rates, which are based on recent labor statistics.

Exhibit 6-2 Respondent Costs in Dollars, per Survey and Site Visit (Averaged)

Labor Category	Average Annual Salary ($)	Average Hourly Rate ($)	Survey	
			Hours	$
Environmental Engineer	42,224	32.5	10.9	354.3
Process Engineer	44,350	34.1	2.4	81.8
Process Chemist	53,000	40.8	0.6	24.4
Lawyer	78,078	60.1	1.8	108.2
Operations Personnel	28,572	22.0	0.7	15.4
Survey Reviewer	49,244	37.9	3.6	136.4
Total for Survey			**20**	**720.5**
			Site Visit	
Environmental Engineer	42,224	32.5	8	260.0
Process Engineer	44,350	34.1	4	136.4
Process Chemist	53,000	40.8	2	81.6
Operations Personnel	28,572	22.0	2	44.0
Total for Site Visit			**16**	**522.0**

6.3 Estimating Agency Burden and Costs

EPA estimates that 182 hours are required over a three-year period to conduct the data collection for the chlorinated aliphatics industry. Approximately 45% of these hours are estimated for Agency employees managing the effort as well as conducting the site visits. The remaining hours will be used by government contractors to actually gather, administer, and manage the data from the RCRA Section 3007 questionnaire updates.

Similarly, over the three-year period, EPA estimates that the total costs to the federal government for this data collection will be $7420. Although EPA will manage all of the data collection activities, it is the contractors that will assist in follow-up efforts and review all received information.

The federal government burden information is presented in Exhibit 6-3. Exhibit 6-3 displays the data collection activities by specific labor category.

Exhibit 6-3 Estimated Costs to Federal Government

Activity	U.S. EPA		Contractor		Total	Total
	Hours	$30/hr	Hours	$50/hr	Hours	$
Survey						
- Development and approval of survey	50	1,500	50	2,500	100	4,000
- Mailing of 25 survey updates	10	300	0	0	10	300
Site visit to 3 facilities	24	720	48	2,400	72	3,120
Grand Total	**84**	**2,520**	**98**	**4,900**	**182**	**7,420**

6.4 Bottom Line Burden Hours and Costs

EPA estimates that potentially 25 facilities will be requested to provide clarification to a completed update to the RCRA Section 3007 information, and/or participate in a site visit.

Based on the variety of activities, EPA estimates that the total hour burden to the regulated community is 548 hours (approximately 20 hours per event) over the three-year period. For this same period, the total cost to the regulated community is estimated at approximately $19,578. Exhibit 6-4(a) presents total respondent burden hours and costs for each activity. Exhibit 6-4(b) presents the total burden hours and costs to the facilities and to the federal government.

Exhibit 6-4 Bottom Line Burden Hours and Costs

a: Estimated Hours and Costs to Respondents (Chlorinated Aliphatics Plants)

Activity	Events	# Hours per Event	Total Hours	Total Dollars ($)
Survey	25	20	500	18,012
Site visit	3	16	48	1,566

b: Estimated Total Costs

Activity	Respondents		Federal Government		Total	
	Hours	$	Hours	$	Hours	$
Questionnaire	500	18,012	110	4,300	610	22,312

Site visit	48	1,566	72	3,120	120	4,686

The average annual salaries of the professionals listed in Exhibit 6-2 and the hourly rate costs calculated for Exhibits 6-4(a) and 6-4(b) are based on data found in the following references:

- The American Salaries and Wages Survey, 3rd Edition (1995)
- The American Almanac of Jobs and Salaries, 112th Edition (1997-98)
- Occupational Outlook Handbook (1996-1997).

Wages were calculated using the salaries of mid-level employees in the private sector. When the data found were categorized by scholastic degree, the salaries of those with Masters degrees were used. When more than one amount was found in the literature, the figures were averaged. These methods provide salary estimates for the experienced managers, engineers, and other employees who would be participating in this survey.

6.5 Reasons for Change in Burden

An 87% decrease in respondent burden is estimated for the chlorinated aliphatics industry from the previously submitted ICR. This decrease is attributable to the completion of most information collection activities associated with the rulemaking process for wastes generated by the chlorinated aliphatics industry.