

ORDINANCE NO. 99-63

AUTHORIZING THE CITY MANAGER TO ENTER INTO A CONTRACT WITH MALCOLM PIRNIE, INC. FOR ENVIRONMENTAL ENGINEERING SERVICES

WHEREAS, pending before the City Council is an ordinance authorizing the City Manager to enter into an engineering services contract for the preparation of a Risk Management Plan and a Process Safety Management Plan;

WHEREAS, the United States Environmental Protection Agency and the State of Ohio have imposed an obligation upon entities which store greater than 1,500 pounds of chlorine to develop such plans; and

WHEREAS, it is necessary for the City to retain the services of an environmental engineer in order to develop such plans.


NOW, THEREFORE, BE IT ORDAINED by the Council of the City of Mason, Ohio, **seven (7)** members elected thereto concurring:

Section 1. That the City Manager is hereby authorized and directed to enter into a contract with Malcolm Pirnie, Inc. for the engineering services necessary to develop a Process Safety Management Plan and Risk Management Plan, according to the terms and conditions of the proposal attached hereto as Exhibit "A" and incorporated herein by reference.

Section 2. That the Finance Director is hereby authorized to pay Malcolm Pirnie, Inc. an amount not to exceed \$24,000.00 for said work.

Section 3. That this Ordinance shall take effect and be in force from and after the earliest period allowed by law.

Passed this 12th day of April, 1999.



Mayor

Attest:



Clerk of Council

March 2, 1999

R. Ernest Stickler
Public Utilities Superintendent
City of Mason
202 West Main Street
Mason, Ohio 45040-1699

Re: Proposal for Process Safety Management Plan and
Risk Management Plan Services

Dear Ernie:

We are pleased to provide the following proposal for Risk Management Plan (RMP) and Process Safety Management (PSM) Plan services for the City of Mason Water Treatment Plant. In this letter, the documentation, analyses, and reporting necessary to complete the RMP and PSM Plan for the plant have been outlined to satisfy the USEPA 112(r) Rule and State of Ohio's "Public Employee Risk Reduction Program" (PERRP). The State of Ohio has "adopted by reference" the requirements of OSHA through passage of the PERRP Act. Therefore, the Process Safety Standard requirements of OSHA, (i.e., PSM Plan development) must be satisfied in Ohio.

The Mason Water Treatment Plant uses one-ton containers for storage of chlorine. These storage quantities are in excess of the RMP (2,500 pounds) and PSM (1,500 pounds) threshold quantities for chlorine. This proposal assumes that the Mason Water Treatment Plant's chlorine installation requires RMP Program Level 2. We understand the USEPA and Ohio EPA are planning to issue guidance which may place Mason into Program Level 3. However, this revision would not change the level of effort nor cost of this proposal. This proposal also assumes that reference tables (no computer modeling) will be used to assess off-site consequence release scenarios. This approach is based on the fact that reference tables presented in USEPA guidance documents, developed in conjunction with the Association of Metropolitan Sewerage Agencies, as well as those developed by the American Water Works Association, include more appropriate off-site consequence release information than all but the most sophisticated (and labor intensive) models.

OSHA and the USEPA administer the PSM and the RMP rules, respectively. The prevention and emergency response programs required by these rules were designed to overlap to avoid making facilities create numerous separate safety programs. Therefore, we will begin our work by compiling the PSM Plan. We will incorporate the information from your existing Emergency Response Plan into the PSM. Then, we will develop the additional elements required under the RMP rule, including the off-site consequences analysis and five-year accident history. We will gather all RMP information required into one RMP report and submit the required RMP*Submit™ forms to EPA.

PSM PLAN REQUIREMENTS

Ohio PERRP's (OSHA's) PSM plan consists of a Prevention Program and an Emergency Response Program. The required elements of these programs and the activities to be performed by Malcolm Pirnie under the scope of work of this proposal are discussed in the following pages.

Prevention Program Requirements

Malcolm Pirnie will work with the Mason Public Utilities Department staff to gather all of the required information for the Prevention Program. Where we find information voids that may require significant effort to close, we will highlight these to the Mason staff who may then determine how they wish to address these gaps. Malcolm Pirnie will be available to assist Mason with completion of these additional tasks as a supplemental effort as detailed later in the Optional Services section of this letter.

A brief outline of the Prevention Program requirements is as follows:

- **Process Safety Information:** This element includes Material Safety Data Sheets (MSDS) and other specific information, including design and operating parameters, process flow diagrams, process and instrumentation drawings (P&ID), etc. We will prepare a list of all the required information at the beginning of the project to allow the Mason Public Utilities Department staff time to gather available information. We will then review available information and identify what additional items/drawings must be prepared. The RMP/PSM services scope of work does not include preparing process safety information; however, Malcolm Pirnie could assist Mason in developing process safety information as detailed in the Optional Services section of this proposal.
- **Process Hazard Analysis (PHA):** A process hazard analysis is an organized and systematic effort to identify and analyze the significance of potential hazards associated with the processing or handling of hazardous chemicals. To conduct the PHA, we propose to use "what-if" methodology. Under this method, the process is divided into subsystems (called "nodes"). Then, potential hazards and their associated causes, consequences, and safeguards are identified for each node. Lastly, recommendations for improvements, if required, are developed. To accomplish this, we will work with a group of your staff. This team will need to be dedicated to the PHA for the study period to provide continuity and to streamline the process. Changing members and responding to interruptions significantly disrupts the PHA process. Our goal is to provide your facility with a PHA that is properly documented, meets regulatory requirements, is potentially useful in determining potential release scenarios, and will provide you with useful recommendations for your operations. It should be emphasized that throughout this project, we will need to work closely with the Mason Public Utilities Department staff to obtain their input and to utilize their operations and maintenance experience.

- **Operating Procedures (OPs):** This element consists of documented normal, startup, shutdown, and emergency operating procedures. This task overlaps with the process safety information task, since operating procedures should include or reference operating ranges and certain design information. We will review all written materials the facilities currently have in place to determine if they need any revisions or additions to be in compliance. The RMP/PSM services scope of work does not include preparing operating procedures; however, Malcolm Pirnie could assist Mason in developing operating procedures as detailed in the Optional Services section of this proposal.
- **Employee Training:** The PSM plan requires that training be provided for subjects such as operating procedures and safe working practices, emergency evacuation and response, safety procedures, and routine and non-routine work activities. We will review training currently provided, document this training, and identify any additional training needs. The RMP/PSM services scope of work does not include the development of any training materials.
- **Mechanical Integrity:** This information should include maintenance procedures and the site's maintenance management program including how maintenance procedures are managed, documented, and reviewed. We will refer to the plant's specific maintenance procedures, as handled under the maintenance program. We will assist your staff with preparation of the required general program management documentation in which management responsibilities are spelled out. The RMP/PSM services scope of work does not include preparing maintenance procedures; however, Malcolm Pirnie could assist Mason in developing maintenance procedures as detailed in the Optional Services section of this proposal.
- **Incident Investigation:** Incident investigation is the process of identifying the underlying causes of incidents and implementing steps to prevent similar events from occurring. The plant may already have accident investigation procedures, which we will review for compliance with requirements of the rule. We will also identify changes that the plant should make to their procedures. The RMP/PSM services scope of work does not include preparing incident investigation procedures; however, Malcolm Pirnie could assist Mason in developing incident investigation procedures as detailed in the Optional Services section of this proposal.
- **Compliance Audits:** Compliance audits of the management program must be performed at least every three years to evaluate the effectiveness of the program and to verify that the program is being implemented. We will work with Mason to create a checklist to be used during the future performance of compliance audits by the Mason Public Utilities Department staff.

- **Management of Change:** Management of change involves documenting the precautions to be taken prior to making changes in a process. We will review what process is currently in place, if any, to comply with this element. If no management of change process is currently in place, we will work with your staff to develop a process appropriate for the plant. We will then prepare the written management of change program, which should note not only how changes will be documented but who will be responsible and how they will be tracked.
- **Pre-Startup Review:** Pre-Startup review is similar to management of change but specifically applies to steps to be taken prior to startup of new or modified sources to make sure proposed changes are safe before they are put into practice. We will review what process is currently in place, if any, to comply with this element. If no process is currently in place, we will work with your staff to develop a process appropriate for the plant. We will then prepare the written pre-startup review program.
- **Contractors:** This element requires that employers who use contractors to perform work in and around processes that involve hazardous chemicals establish a screening process so that they hire and use contractors who accomplish the desired tasks without compromising the safety and health of the employees at the plant. We will work the Mason staff to create and document the contractor safety management program. The program will ensure that contractors are knowledgeable about the covered process(es), understand plant safety rules and policies, and can work safely in the assigned work areas.
- **Employee Participation:** The PSM Rule also requires that employers consult with their employees and their representatives regarding the employers' efforts in the development and implementation of the process safety management program. We will assist your staff in creating and documenting a plan to implement employee participation.
- **Non-Routine Work Permits:** This element involves non-routine work to be conducted in process areas. We will document this element, building on procedures that are already in place at the plant through existing safety programs. Examples typically include hot work permits or other special requirements potentially applicable in the process area.

Emergency Response Program Requirements

Working with the Mason Public Utilities Department staff, we will discuss how the plant plans to respond to emergencies and review the plant's existing Emergency Response Plan. The Emergency Response Program required under the RMP and PSM rules must be site specific and comprehensive, including the following elements:

- Public and emergency response agency notification procedures,
- Proper first aid and emergency medical treatment,
- Emergency response measures,
- Procedures for inspecting, testing and maintaining response equipment,
- Employee training, and
- Program review procedures.

Malcolm Pirnie will review current emergency response procedures. If appropriate, we will provide a list of recommendations to Mason regarding the Emergency Response Program content, and we will also identify any modifications to the existing procedures that the plant should consider. The scope of work does not include the preparation of an Emergency Response Program plan. Malcolm Pirnie could assist Mason in developing an Emergency Response Program Plan as detailed in the Optional Services section of this proposal.

It should be noted that USEPA has adopted a policy for non-responding facilities similar to that adopted by OSHA in its Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard, which allows certain facilities to develop an emergency response plan to ensure employee safety, rather than a full-fledged emergency response plan. If Mason employees will not respond to accidental releases of regulated substances, then Mason is not required to have a full-fledged emergency response plan, but must simply coordinate with local response agencies to ensure that they will be prepared to respond to an emergency at the facilities. If Mason elects to use outside responders, then Malcolm Pirnie will document the coordination between the Mason Public Utilities Department and the local responder. The USEPA interprets "response" to be consistent with the definition of response specified under OSHA's HAZWOPER Standard. OSHA defines emergency response as "a response effort by employees from outside the immediate release area or by other designated responders . . . to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance." This definition excludes "responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel" as well as "responses to releases of hazardous substances where there is no potential safety or health hazard (i.e., fire, explosion, or chemical exposure)." However, due to the nature of the regulated substances subject to the rules, only the most minor incident would be included in this exception.

RISK MANAGEMENT PLAN (RMP)

Malcolm Pirnie will compile the required elements of the RMP into a comprehensive RMP Report. USEPA has developed software called RMP*Submit™ for submittal of the RMP information in electronic form. Malcolm Pirnie will prepare and submit the RMP*Submit™ required information and include copies of the form in the RMP Report. The required elements of the RMP and the activities to be performed by Malcolm Pirnie under the scope of work of the proposal associated with these elements are provided below:

- **Executive Summary:** Malcolm Pirnie will prepare an executive summary for the plant summarizing the accidental release prevention and emergency response policies, the worst-case release scenarios and the alternative release scenarios, the five-year accident history, the emergency response program and planned changes to improve safety.
- **Registration:** Malcolm Pirnie will complete a registration form for the chlorine storage facility at the plant.
- **Off-site Consequence Analysis:** Using the data and results from the PSM Process Hazard Analysis, Malcolm Pirnie will perform the required off-site consequence analysis (OCA). The OCA will include a worst-case and alternate release analysis. Malcolm Pirnie plans to use the following references to perform the OCA:
 - USEPA's Off-site Consequence Analysis Guidance (OCAG) dated May 24, 1996 and as revised June 10, 1998.
 - Information provided in USEPA's General Risk Management Program Guidance, 1998.
 - American Water Works Association Research Foundation's (AWWARF's) Compliance Guidance and Model Risk Management Program for Water, 1998.
 - Association of Metropolitan Sewerage Agencies' (AMSA's) USEPA RMP Guidance for Wastewater Treatment Plants published October, 1998.Malcolm Pirnie will prepare a narrative documenting the results of the worst-case release analysis and alternate release analyses.
- **Five-Year Accident History:** Malcolm Pirnie will review the plant's accident records and prepare a report of any accidental releases from the past five years as specified in the rule.
- **Prevention Program:** Malcolm Pirnie will reference the applicable elements of the PSM including the Process Hazard Analysis, training, maintenance, management of change, compliance audits, non-routine work, pre-startup review, contractors and incident investigation.
- **Emergency Response Program:** Malcolm Pirnie will reference the plant's emergency response program or document the plant's non-responding policy and coordination with local responders.
- **Certification:** The owner or operator is required to submit a certification of the accuracy and completeness of the information submitted. Malcolm Pirnie will provide Mason with the certification for signing and will include this certification with submittal of the RMP*Submit™ forms.

OPTIONAL SERVICES

The following is a description of optional services which can be provided at the request of the City, but are not included in the standard RMP/PSM process our proposed scope and budget.

If, during the evaluation of existing information and procedures at the plant, it is determined that additional written materials are required, Malcolm Pirnie can assist the Mason staff in generating the additional materials. The additional scope items may include the following:

- Operating Procedures
- Maintenance Procedures
- Process Safety Information
- Incident Investigation Procedures
- Emergency Response Procedures
- Training Procedures and Materials
- Non-Routine Work Permits

The Mason Public Utilities Department may also be interested in having Malcolm Pirnie assist them with community outreach activities regarding the RMP. If Mason requests Malcolm Pirnie's help with regard to community outreach, Malcolm Pirnie will work with the Mason staff to develop a community outreach program that is applicable in scope and content to the risk posed by the chlorine use and storage operations at the plant. Malcolm Pirnie will facilitate discussions between Mason officials regarding the community outreach program and develop a community outreach program plan. Malcolm Pirnie will also be available to prepare materials to distribute to the population surrounding the plant and organize and attend public meetings as part of the outreach program, if requested to do so.

PROJECT APPROACH

Our project team has successfully completed or is in the process of completing RMP/PSM plan work for the following water and wastewater utilities: Cincinnati Water Works; Sanitation District No. 1 of Northern Kentucky; Columbus Southerly and Jackson Pike Wastewater Treatment Plants, OH; Findlay Water and Wastewater Treatment Plants, OH; and Newark Water Treatment Plant, OH.

The project team members have been involved with the American Water Works Association and Association of Metropolitan Sewerage Agencies activities and conferences relating to risk management planning and are intimately familiar with the guidance documents generated by these associations and the EPA relative to risk management planning.

The following is a brief description of how we will perform the scope of services detailed above.

TASK No. 1: Site Visits

- **Information Gathering:** Prepare a list of the information we require, providing it to the Mason Public Utilities Department staff prior to our first site visits, to give staff time to locate sources. The objective of this task will be to obtain the process safety information necessary to conduct PHAs and additional materials required to complete the RPM/PSM plans.
- **Process Hazard Analysis:** Collect the hazard review process information for the covered processes and conduct the process hazard analysis. This proposal assumes that completion of the process hazards analysis can be accomplished in one two-day site visit.

TASK No. 2: Evaluate Information and Data

- **Data Review:** Examine current information for completeness and obtain additional information as needed.

OPTIONAL TASK No. 2a: Conduct Additional Site Visits to Develop Additional Procedures, Information, and/or Materials

- **Additional Site Visits:** Work with the Mason Public Utilities Department staff to develop information, procedures, and/or materials necessary for the RMP/PSM plans.

TASK No. 3: Draft PSM / RMP

- **Draft Reports:** Submit draft PSM Plans and draft RMP Reports for comments.
- **Review:** Meet with the Mason Public Utilities Department staff to review comments to the draft plans.

OPTIONAL TASK 3a: Community Outreach Plan

- **Meeting/Development:** Meet with Mason to discuss and develop the community outreach program plans. Document plans and submit to you for approval.
- **Implementation:** Develop community outreach brochures, mail brochures to the population surrounding the plant, attend public meetings or participate in any other activities described in the community outreach program plan, as requested by Mason.

R. Ernest Stickler
City of Mason

March 2, 1999
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TASK No. 4: Finalize PSM / RMP

- **RMP and PSM Plan:** Upon receipt of the comments, revise the draft PSM Plans and RMPs and submit the final versions to the Mason Public Utilities Department.
- **RMP Submittal:** Submit the RMP forms as required using RMP*Submit™.

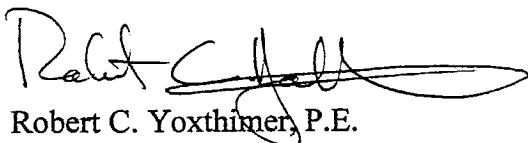
PROJECT BUDGET

We have prepared our budget using the approach described above, and our understanding that some required material (operation, maintenance, and incident investigation procedures and safety information) is already available. Our estimated fee, including expenses, for services as described herein is \$24,000. It should be noted that this fee does not include any of the items noted in the Optional Services section of this letter, including preparing operating, maintenance, or incident investigation procedures; process safety information; or development and implementation of the community outreach program. Should the Mason Public Utilities Department staff desire Malcolm Pirnie's assistance with these additional tasks, we will prepare a separate proposal detailing these tasks and the associated costs.

We appreciate the opportunity to respond to your request for this information and look forward to your favorable review of our Proposal. If this Proposal is acceptable, we will develop a new Task Order under our Master Services Agreement based on the scope and fee outlined in this letter. If you have any questions on the information presented in this Proposal, please let us know.

Very truly yours,

MALCOLM PIRNIE, INC.



Robert C. Yoxthimer, P.E.
Senior Associate

msn112r.doc/lsr

- c. S. Lahrmer, City of Mason
J. Stouch, Malcolm Pirnie
T. Vargish, Malcolm Pirnie

PROFESSIONAL SERVICES TASK ORDER

Task Order Number: 7
Task Order Date: 4/13/99

Subject to the Master Services Agreement between *the City of Mason, Ohio* [Client] and *Malcolm Pirnie, Inc.* [Malcolm Pirnie], dated April 14, 1998, Client hereby authorizes Malcolm Pirnie to perform services as specified in this Task Order and in accordance with the above mentioned Agreement.

1. Project Description: A description of Project for which work is requested is provided in Attachment 1, incorporated into this Task Order.

Client's Project Number: _____

Project Name: Process Safety Management Plan and Risk Management Plan

Client's Representative: R. Ernest Stickler

2. Scope of Work: Malcolm Pirnie shall perform its services as described in Attachment 1, Exhibit A incorporated into this Task Order.

Malcolm Pirnie's Representative: Robert C. Yoxthimer

3. Time Schedule: Malcolm Pirnie shall use reasonable efforts to complete the work as follows: The basic services included in Exhibit A will be completed within approximately three (3) months from the date of execution of this Task Order and contingent upon timely participation of the Client and others.

4. Compensation: Malcolm Pirnie's Compensation authorized under this Task Order, which shall not be exceeded without prior written authorization of Client, is:

\$ 24,000.00

This Task Order's Method of Payment is incorporated and attached as Attachment 2.

5. Special Conditions: This Task Order is subject to the special provisions as described in Attachment __, attached and incorporated into this Task Order: N/A

6. Amendment: This Task Order amends a previously executed Task Order: N/A

Previous Task Order Number: _____ Previous Task Order Date: _____

ISSUED AND AUTHORIZED BY:
CITY OF MASON, OHIO

By: [Signature]

Title: City Manager

Ord 97-63

ACCEPTED AND AGREED TO BY:
MALCOLM PIRNIE, INC.

By: [Signature]

Title: Senior Associate

PROFESSIONAL SERVICES TASK ORDER

Task Order Number: 7

Attachment 1 Scope of Work

The following Exhibits are attached to this Task Order, Attachment 1, and are made a part thereof:

Exhibit A: Process Safety Management Plan and Risk Management Plan Services.

Exhibit B: Optional Services.

Task Order No. 7

Exhibit A Process Safety Management Plan and Risk Management Plan Services

1. **MEETINGS.** Malcolm Pirnie will attend a kick-off meeting with the Client in order to establish lines of communication and to introduce key individuals involved with the project both from the Client and Malcolm Pirnie. Critical features and concerns will be discussed and critical milestone dates will be established. One review meeting will be held at the 90% completion stage for reviewing the Process Safety Management (PSM) Plan and Risk Management Plan (RMP) with the Client and making any necessary revisions prior to final completion. Malcolm Pirnie will prepare and distribute minutes of the meetings.

2. **GENERAL.** Malcolm Pirnie will prepare a PSM plan and RMP to satisfy the State of Ohio's Public Employee Risk Reduction Program (PERRP) and USEPA 112(r) Rule. The following is a description of how we will perform the scope of services:

2.1 Task No. 1: Site Visits

2.1.1 Information Gathering. Prepare a list of the information we require, providing it to the Client's staff prior to our first site visit, to give the staff time to locate sources. The objective of this task will be to obtain the process safety information necessary to conduct the Process Hazard Analysis (PHA) and additional materials required to complete the RPM/PSM plans.

2.1.2 Process Hazard Analysis. Collect the hazard review process information for the covered processes and conduct the process hazard analysis. Malcolm Pirnie assumes that completion of the process hazards analysis can be accomplished in one two-day site visit.

2.2 Task No. 2: Evaluate Information and Data

2.2.1 Data Review. Examine current information for completeness and obtain additional information as needed.

2.3 Task No. 3: Draft PSM / RMP

2.3.1 Draft Reports. Submit 90% complete draft PSM Plans and draft RMP Reports to the Client for comments.

2.3.2 Review. Meet with the Client's staff to review comments to the 90% complete draft plans.

2.4 Task No. 4: Finalize PSM / RMP

2.4.1 RMP and PSM Plan. Upon receipt of the comments, revise the draft PSM Plans and RMPs and submit the final versions to the Client.

2.4.2 RMP Submittal. Submit the RMP forms as required using RMP*Submit™.

3. **PROCESS SAFETY MANAGEMENT PLAN REQUIREMENTS.** Ohio PERRP's PSM plan consists of a Prevention Program and an Emergency Response Program. The required elements of these programs and the activities to be performed by Malcolm Pirnie are as follows:

3.1 **Prevention Program Requirements.** Malcolm Pirnie will work with the Client's staff to gather all of the required information for the Prevention Program. Where we find information voids that may require significant effort to close, we will highlight these to the Client's staff who may then determine how they wish to address these gaps. Malcolm Pirnie will be available to assist the Client with completion of these additional tasks as a supplemental effort as detailed in Exhibit B, Optional Services. A brief outline of the Prevention Program requirements is as follows:

3.1.1 Process Safety Information. This element includes Material Safety Data Sheets (MSDS) and other specific information, including design and operating parameters, process flow diagrams, process and instrumentation drawings (P&ID), etc. We will prepare a list of all the required information at the beginning of the project to allow the Client's staff time to gather available information. We will then review available information and identify what additional items/drawings must be developed. This RMP/PSM services scope of work does not include developing

Task Order No. 4

Exhibit A Scope of Services

the additional process safety information. The development of process safety information would be provided under Exhibit B, Optional Services.

- 3.1.2 Process Hazard Analysis (PHA). A process hazard analysis is an organized and systematic effort to identify and analyze the significance of potential hazards associated with the processing or handling of hazardous chemicals. To conduct the PHA, we propose to use "what-if" methodology. Under this method, the process is divided into subsystems (called "nodes"). Then, potential hazards and their associated causes, consequences, and safeguards are identified for each node. Lastly, recommendations for improvements, if required, are developed. To accomplish this, we will work with a group of the Client's staff. This team will need to be dedicated to the PHA for the study period to provide continuity and to streamline the process. Changing members and responding to interruptions significantly disrupts the PHA process. The PHA will be properly documented, meet regulatory requirements, be potentially useful in determining potential release scenarios, and provide you with useful recommendations for your operations. It should be emphasized that throughout this project, we will need to work closely with the Client's staff to obtain their input and to utilize their operations and maintenance experience.
- 3.1.3 Operating Procedures (OPs). This element consists of documented normal, startup, shutdown, and emergency operating procedures. This task overlaps with the process safety information task, since operating procedures should include or reference operating ranges and certain design information. We will review all written materials the facility currently has in place to determine if they need any revisions or additions to be in compliance. This RMP/PSM services scope of work does not include developing additional operating procedures. The development of operating procedures would be provided under Exhibit B, Optional Services.
- 3.1.4 Employee Training. The PSM plan requires that training be provided for subjects such as operating procedures and safe working practices, emergency evacuation and response, safety procedures, and routine and non-routine work activities. We will review training currently provided, document this training, and identify any additional training needs. This RMP/PSM services scope of work does not include the development of any training materials. The development of training materials would be provided under Exhibit B, Optional Services.
- 3.1.5 Mechanical Integrity. This information should include maintenance procedures and the site's maintenance management program including how maintenance procedures are managed, documented, and reviewed. We will refer to the plant's specific maintenance procedures, as handled under the maintenance program. We will assist your staff with preparation of the required general program management documentation in which management responsibilities are spelled out. This RMP/PSM services scope of work does not include developing any maintenance procedures. The development of maintenance procedures would be provided under Exhibit B, Optional Services.
- 3.1.6 Incident Investigation. Incident investigation is the process of identifying the underlying causes of incidents and implementing steps to prevent similar events from occurring. The plant may already have accident investigation procedures, which we will review for compliance with requirements of the rule. We will also identify changes that the plant should make to their procedures. The RMP/PSM services scope of work does not include developing incident investigation procedures. The development of incident investigation procedures would be provided under Exhibit B, Optional Services.
- 3.1.7 Compliance Audits. Compliance audits of the management program must be performed at least every three years to evaluate the effectiveness of the program and to verify that the program is being implemented. We will work with the Client to create a checklist to be used during the future performance of compliance audits by the Client's staff.
- 3.1.8 Management of Change. Management of change involves documenting the precautions to be taken prior to making changes in a process. We will review what process is currently in place, if any, to comply with this element. If no management of change process is currently in place, we will work with the Client's staff to develop a process appropriate for the plant. We will then prepare the written management of change program, which should note not only how changes will be documented but who will be responsible and how they will be tracked.

Task Order No. 4

Exhibit A Scope of Services

- 3.1.9 **Pre-Startup Review.** Pre-Startup review is similar to management of change but specifically applies to steps to be taken prior to startup of new or modified sources to make sure proposed changes are safe before they are put into practice. We will review what process is currently in place, if any, to comply with this element. If no process is currently in place, we will work with the Client's staff to develop a process appropriate for the plant. We will then prepare the written pre-startup review program.
- 3.1.10 **Contractors.** This element requires that employers who use contractors to perform work in and around processes that involve hazardous chemicals establish a screening process so that they hire and use contractors who accomplish the desired tasks without compromising the safety and health of the employees at the plant. We will work the Client's staff to create and document the contractor safety management program. The program will ensure that contractors are knowledgeable about the covered process(es), understand plant safety rules and policies, and can work safely in the assigned work areas.
- 3.1.11 **Employee Participation.** The PSM Rule also requires that employers consult with their employees and their representatives regarding the employers' efforts in the development and implementation of the process safety management program. We will assist the Client's staff in creating and documenting a plan to implement employee participation.
- 3.1.12 **Non-Routine Work Permits.** This element involves non-routine work to be conducted in process areas. We will document this element, building on procedures that are already in place at the plant through existing safety programs. Examples typically include hot work permits or other special requirements potentially applicable in the process area. This RMP/PSM services scope of work does not include developing any non-routine work permits. The development of non-routine work permits would be provided under Exhibit B, Optional Services.

3.2 Emergency Response Program Requirements. Working with the Client's staff, we will discuss how the plant plans to respond to emergencies and review the plant's existing Emergency Response Plan. The Emergency Response Program required under the RMP and PSM rules must be site specific and comprehensive, including the following elements:

- Public and emergency response agency notification procedures,
- Proper first aid and emergency medical treatment,
- Emergency response measures,
- Procedures for inspecting, testing and maintaining response equipment,
- Employee training, and
- Program review procedures.

Malcolm Pirnie will review current emergency response procedures. If appropriate, we will provide a list of recommendations to Client regarding the Emergency Response Program content, and we will also identify any modifications to the existing procedures that the plant should consider. This RMP/PSM services scope of work does not include the preparation of the actual Emergency Response Program Plan. The development of an Emergency Response Program Plan would be developed under Exhibit B, Optional Services.

4. RISK MANAGEMENT PLAN. Malcolm Pirnie will compile the required elements of the RMP into a comprehensive RMP Report. USEPA has developed software called RMP*Submit™ for submittal of the RMP information in electronic form. Malcolm Pirnie will prepare and submit the RMP*Submit™ required information and include copies of the form in the RMP Report. The required elements of the RMP and the activities to be performed by Malcolm Pirnie associated with these elements are provided below:

4.1 Executive Summary. Malcolm Pirnie will prepare an executive summary for the plant summarizing the accidental release prevention and emergency response policies, the worst-case release scenarios and the alternative release scenarios, the five-year accident history, the emergency response program and planned changes to improve safety.

4.2 Registration. Malcolm Pirnie will complete a registration form for the chlorine storage facility at the plant.

Task Order No. 4

Exhibit A Scope of Services

4.3 Off-site Consequence Analysis. Using the data and results from the PSM Process Hazard Analysis, Malcolm Pirnie will perform the required off-site consequence analysis (OCA). The OCA will include a worst-case and alternate release analysis. Malcolm Pirnie plans to use the following references to perform the OCA:

- USEPA's Off-site Consequence Analysis Guidance (OCAG) dated May 24, 1996 and as revised June 10, 1998.
- Information provided in USEPA's General Risk Management Program Guidance, 1998.
- American Water Works Association Research Foundation's (AWWARF's) Compliance Guidance and Model Risk Management Program for Water, 1998.
- Association of Metropolitan Sewerage Agencies' (AMSA's) USEPA RMP Guidance for Wastewater Treatment Plants published October, 1998.

Malcolm Pirnie will prepare a narrative documenting the results of the worst-case release analysis and alternate release analyses.

4.4 Five-Year Accident History. Malcolm Pirnie will review the plant's accident records and prepare a report of any accidental releases from the past five years as specified in the rule.

4.5 Prevention Program. Malcolm Pirnie will reference the applicable elements of the PSM including the Process Hazard Analysis, training, maintenance, management of change, compliance audits, non-routine work, pre-startup review, contractors and incident investigation.

4.6 Emergency Response Program. Malcolm Pirnie will reference the plant's emergency response program or document the plant's non-responding policy and coordination with local responders.

4.7 Certification. The owner or operator is required to submit a certification of the accuracy and completeness of the information submitted. Malcolm Pirnie will provide Client with the certification for signing and will include this certification with submittal of the RMP*SubmitTM forms.

Task Order No. 7

Exhibit B Optional Services

1. **GENERAL.** Malcolm Pirnie will provide the optional services outlined below at the request of the Client. These services are not included in our current scope of work or compensation amount. Should the Client request Malcolm Pirnie's assistance with these optional services, Malcolm Pirnie will submit a proposal to the Client which details the additional tasks and associated costs.

2. **DEVELOPMENT OF ADDITIONAL MATERIALS.** If, during the evaluation of existing information and procedures at the plant, it is determined that additional written materials are required, Malcolm Pirnie can assist the Client in generating the additional materials. The additional scope items may include the following:

- Process Safety Information
- Operating Procedures
- Employee Training Procedures and Materials
- Maintenance Procedures
- Incident Investigation Procedures
- Non-Routine Work Permits
- Emergency Response Procedures/Program

The development of additional materials could be done in conjunction with Task No. 2 described in Exhibit A. Malcolm Pirnie would conduct additional site visits to develop additional procedures, information, and/or materials. We would work with the Client's staff to develop information, procedures, and/or materials necessary for the RMP/PSM plans.

3. **COMMUNITY OUTREACH PROGRAM.** Malcolm Pirnie will also be available to assist the Client with community outreach activities regarding the RMP. If the Client requests Malcolm Pirnie's help with regard to community outreach, Malcolm Pirnie will work with the Client to develop a Community Outreach Program that is applicable in scope and content to the risk posed by the chlorine use and storage operations at the plant. Malcolm Pirnie will facilitate discussions between the Client's officials regarding the community outreach program and develop a community outreach program plan. Malcolm Pirnie will also be available to prepare brochures and other materials to distribute to the population surrounding the plant, as well as organize and attend public meetings as part of the outreach program, if requested to do so.

PROFESSIONAL SERVICES TASK ORDER

Task Order Number: 7

Attachment 2 Method of Payment

Terms of Payment

1. **Multiplier.** For Basic Services under Section 1, Client shall pay Malcolm Pirnie's Salary Cost times a factor of 2.15.

The estimated cost of Malcolm Pirnie's services, including non-labor expenses, is \$ 24,000.00.

Salary Cost is defined as the actual salary of staff members for the actual time worked times a factor of 1.48 which accounts for employee benefits such as vacation, sick leave, unemployment and payroll taxes, contributions for Social Security and retirement benefits, life and medical insurance, tuition and other such costs.

2. **Reimbursable Expenses.** Except for certain in-house services, project expenses incurred with outside vendors will be invoiced at cost plus 10% to cover handling. These services may include, but are not limited to: shipping charges; printing; supplies; equipment; traveling expenses; special insurance; licenses; permits; or subcontracted services.

In-house services not subject to handling costs are:

Computer usage:	\$9/hr-microcomputers; \$19/hr- CADD
Transportation:	\$0.34/mile for vehicles; \$0.44/mile for 4x4 vehicles
Reproduction:	\$0.10/copy for standard page sized documents
Specialty Equipment:	In accordance with a usage rate schedule

3. **Invoices.** Malcolm Pirnie will submit invoices to Client for each month during which services were performed. Invoices may include carrying charges at 1.5% per month for delinquent payments outstanding over 30 days and applicable sales or value-added taxes.