

STATE OF MINNESOTA

MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of Joslyn Mfg. & Supply  
Co., Brooklyn Center, Minnesota,  
Proceedings Under Sections 17 and 18  
of the Minnesota Environmental Response  
and Liability Act.

RESPONSE ORDER  
BY CONSENT

IT IS HEREBY STIPULATED AND AGREED by and among the parties hereto as follows:

A.

Jurisdiction

This RESPONSE ORDER BY CONSENT ("Consent Order") is issued pursuant to the authority vested in the Minnesota Pollution Control Agency ("MPCA") by the Environmental Response and Liability Act of 1983 ("ERLA"), Minn. Stat. Ch. 115B, and Minn. Stat. Chapters 115 and 116.

On the basis of the results of the testing and analysis described in the Statement of Facts, infra, and MPCA files and records, the MPCA has determined that the previous disposal of hazardous substances at the Joslyn Mfg. & Supply Co. in Brooklyn Center, Minnesota ("Joslyn Site") has given rise to a release of hazardous substances, that the release is causing ground water contamination, and that the release will continue to cause contamination of ground water unless the release is abated. The MPCA has also determined that: (1) the Joslyn Mfg. & Supply Co. (Joslyn) is a "responsible person" within the meaning of Minn. Stat. § 115B.03; (2) the Joslyn Site constitutes a facility within the meaning of Minn. Stat. § 115B.02, subd. 5; (3) the actions to be taken pursuant to this Consent Order are reasonable and necessary to protect the public health or welfare or the environment; (4) a reasonable time for beginning and completing the actions required by this Consent Order has been provided for; and (5) Joslyn has agreed to undertake the actions requested by MPCA in this Consent

Order. In signing this Consent Order, Joslyn is settling a disputed matter between the MPCA and itself. Joslyn does not admit, and retains the right to contest the validity of any of the determinations made herein by the MPCA; provided, however, that Joslyn agrees to be bound by the provisions of this Consent Order as a matter of contract notwithstanding its denial of statutory liability and provided further that Joslyn specifically retains the right to challenge under Part V of this Consent Order whether MPCA determinations, modifications and orders issued under Part V of this Consent Order are reasonable and necessary to protect the public health or welfare or the environment and to challenge under Part V of this Consent Order the refusal of the MPCA Board or MPCA Director to grant an extension to a schedule requested by Joslyn. The parties hereto specifically agree to undertake all actions required of them by the terms and conditions of this Consent Order within the time frames specified herein or as extended by the terms of this Consent Order.

B.

Parties

This Consent Order shall apply to and be binding upon the following parties:

1. The Joslyn Mfg. & Supply Co.; and
2. The Minnesota Pollution Control Agency.

C.

Statement of Facts

For purposes of this Consent Order, the following constitutes a summary of the facts upon which this Consent Order is based. None of the facts related herein shall be considered admissions by any party with respect to any claims unrelated to or persons not a party to, this Consent Order.

1. The Joslyn Site is owned by Joslyn and is specifically located in the southwest quarter of section 10, T118 N, R21W in the City of Brooklyn Center.

2. The Joslyn Site was originally owned and operated by Naugle Pole and Tie Company who sold the property to Consolidated Pole Treating Company sometime in the 1940's. Joslyn was a part owner of the Consolidated Pole Treating Company and eventually obtained sole ownership of the Joslyn Site in the 1960's. Joslyn operated the Joslyn Site until its closure in 1980. Operations at the Joslyn Site consisted of a wood treating process, originally using creosote as the wood preserving fluid in a thermal process, and then, in about 1965, the process was converted to a pressure treating one using pentachlorophenol and various water soluble wood preserving fluids such as chromated copper arsenic.

3. Wastes consisting of creosote containing polynuclear aromatic hydrocarbons (PAH), pentachlorophenol, and chromated copper arsenic generated from the cleaning of the storage and thermal treating tanks, boiler blowdown water and wastewater from the wood treating process were disposed of in waste disposal ponds on the Joslyn Site. In addition, general burial of sludges and at least two large wood treating solution spills, in the late 1950's or early 1960's and 1968, occurred at the Joslyn Site.

4. In 1961, the City of Brooklyn Center sampled ground water from a number of private wells located near the Joslyn Site and found a number of the wells to be contaminated by phenols as determined by the 4AAP method. In 1980, the MPCA sampled a number of the wells and determined that phenols and pentachlorophenol contamination existed in a number of the wells.

5. From 1976 to September 1980 when operations at the Joslyn Site were terminated, treating tank sludges were removed to out-of-state land disposal facilities.

6. During November and December 1980, the treating tanks at the Joslyn Site were removed. MPCA approval was obtained prior to filling the holes left by the tank removals.

7. In January 1982, approximately 30,000 gallons of wood treating solution were removed from the Joslyn Site to an out-of-state waste disposal facility and in June 1982 Joslyn shipped approximately 6,500 gallons of wood preserving sludge to a permitted out-of-state Resource Conservation Recovery Act facility.

8. Studies and reports conducted for Joslyn (Barr Engineering Company reports, "Groundwater Investigation, Brooklyn Center Facility", October 1981, and "Hazardous Waste Investigation, Disposal Sites A, B and C, Brooklyn Center Facility", December 1981), and other documents in the MPCA files reveal the following information:

a) Wastes consisting of creosote (containing PAH), pentachlorophenol, and chromated copper arsenic, were discharged by Joslyn to waste disposal ponds on the Joslyn Site;

b) ground water beneath the Joslyn Site is contaminated with PAH, metals, and pentachlorophenol;

c) contaminated soils exist at the Joslyn Site.

9. Information obtained to date reveals the following partial listing of the substances found at the Joslyn Site or found in the analyses of ground water samples taken from the Joslyn Site:

Sludge from wood treating processes  
Benzo (a) anthracene  
Benzo (a) pyrene  
Benzo (g.h.i.) perylene  
Benzo (k) fluoranthene  
Chrysene  
Dibenzo (a.h) anthracene  
Fluoranthene  
Fluorene  
Pentachlorophenol  
Arsenic  
Total Chromium  
Copper

These substances are defined as hazardous substances in ERLA. In addition, the sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol is defined as a hazardous substance under ERLA, Minn. Stat. § 115B.02, Subd. 8(c) and 9(b).

10. In September 1982, Joslyn negotiated with Waste Reductions, Inc. to excavate, transport and dispose of sludges from the Joslyn Site to a North Dakota site with all of said activity to be completed by the Fall of 1983. This project failed to take place when it was learned that the disposal site was not permitted.

11. In 1983, after discussions with MPCA staff, Joslyn concluded that permission to utilize on-site incineration would be difficult to procure and Joslyn sought bids to excavate, transport and dispose of the sludge materials. Chemical Waste Management, Inc. was selected but in June, 1983 before the project could get underway, the facility in Joliet, Illinois scheduled to receive the waste was denied a permit to receive the waste by the State of Illinois.

12. In June 1983, the MPCA submitted a recommendation to the U.S. EPA that the Joslyn Site have a Hazard Ranking Score (HRS) of 42.94 and recommended that the Joslyn Site be placed on the U.S. EPA's National Priority List. Pursuant to Section 105(8)(b) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Joslyn Site was listed on the National Priorities List by publication in the Federal Register on September 8, 1983, 48 Federal Register 40658-40682 (1983).

13. On September 27, 1983, the MPCA Board issued a Request for Response Action to Joslyn requesting that Joslyn undertake a number of remedial actions to abate the release of hazardous substances from the Joslyn Site.

D.

Definitions

Unless otherwise explicitly stated, the definitions provided in Minn. Stat. § 115B. shall control the meaning of the terms used in this Consent Order.

ORDER AND AGREEMENT

Based on the information available to the parties on the effective date of this Consent Order, and without trial or adjudication of any issues of fact or law and without Joslyn's admission of liability or responsibility, IT IS HEREBY ORDERED AND AGREED AS FOLLOWS:

I.

Scope of Order

This Consent Order shall govern the following matters:

1. A Remedial Investigation;
2. A Feasibility Study;
3. The development of a Response Action Plan(s);
4. Implementation of the Response Action Plan(s);
5. Routine monitoring; and,
6. Reimbursement of the MPCA's costs.

These matters are set forth in more specific detail in the Exhibits to this Consent Order. In the event of any ambiguity or inconsistency between this Part and the Exhibits to this Consent Order, the Exhibits shall govern.

II.

Remedial Investigation

Joslyn shall continue, complete and report upon the Remedial Investigation of the Joslyn Site in accordance with the requirements and time schedules set forth in Exhibit A to this Consent Order. Exhibit A is appended to and made an integral and enforceable part of this Consent Order. The purposes of the

Remedial Investigation are to identify soil contamination, to assess the extent and magnitude of any surface water contamination and to assess the extent and magnitude of the ground water contamination resulting from the disposal of hazardous substances, pollutants or contaminants at the Joslyn Site.

III.

Feasibility Study

Joslyn shall design, propose, undertake and report upon a Feasibility Study (FS) for the Joslyn Site in accordance with Exhibit A to this Consent Order. The purpose of the Feasibility Study is to identify and assess response action alternatives available to abate or minimize the release or threatened release of hazardous substances from the Joslyn Site as identified through the Remedial Investigation conducted pursuant to Part II of this Consent Order.

IV.

Response Action Plans and Response Action Implementation

Following completion of the Remedial Investigation and Feasibility Study, Joslyn shall design and propose a Response Action Plan (RAP) and implement Response Actions (RAs) for the Joslyn Site in accordance with the requirements and time schedules set forth in Exhibit B to this Consent Order. Exhibit B is appended to and made an integral and enforceable part of this Consent Order. The purpose of the RAP is to establish procedures for implementation of selected response action alternative(s) required to abate or minimize the release or threatened release of hazardous substances, pollutants or contaminants from the Joslyn Site.

V.

Resolution of Disputes

A. Disputes Regarding Matters Other Than Submittals

If a dispute arises as to the meaning of any part of this Consent Order or concerning the implementation of the RI, FS, RAP, or RA(s), other than with

respect to the approval of submittals, Joslyn shall provide the MPCA Director with a written statement supporting its position. The MPCA Director shall issue a proposed order resolving the dispute. The order shall be considered a final administrative action of the MPCA regarding the issue in dispute. If the dispute cannot be resolved through good faith negotiation, Joslyn may initiate, within thirty (30) days of the MPCA Director's order, such judicial action as it may deem appropriate to adjudicate the reasonableness of the MPCA Director's order. Unappealed orders of the MPCA Director shall govern the interpretation and implementation of this Consent Order with respect to the issues in dispute.

B. Disputes Regarding Submittals

1. All submittals or modifications thereto shall be technologically feasible and in accordance with sound engineering practices.

2. The MPCA Director and Joslyn shall provide the opportunity to consult with each other during the review of submittals or modifications under this Part.

3. In reviewing all submittals, the MPCA shall comply with the requirements of Minn. Stat. § 116.07; subd. 6 (1984).

4. If a dispute arises between the MPCA Director and Joslyn regarding any submittal, document, report, or schedule (collectively, "submittal"), for which approval is required by this Consent Order or the Exhibits thereto, the dispute shall be resolved in the following manner:

a. The MPCA Director shall review each submittal made by Joslyn as required by this Consent Order within thirty (30) calendar days of receipt and shall notify Joslyn in writing by the thirtieth calendar day, or the first



working day thereafter, that the submittal is approved as is, approved with modifications or disapproved. In the event the submittal is approved as is, the submittal shall become an integral and enforceable part of the Consent Order. In the event the submittal is disapproved in whole or in part, the MPCA Director shall notify Joslyn in writing of the inadequacies and shall state the necessary amendments or revisions and the reasons therefor. In the event the submittal is approved as modified, the MPCA Director shall notify Joslyn in writing of the specific modifications and the reasons therefor.

b. Within fourteen calendar days after receiving notice of disapproval or of approval with modifications, Joslyn shall either:

(1) Submit revisions to correct the inadequacies or concur in the MPCA Directors' modifications; or,

(2) Initiate such judicial action as it may deem appropriate to adjudicate the reasonableness of the MPCA Director's disapproval or approval with modifications.

c. Unappealed orders of the MPCA Director shall become integral and enforceable parts of this Consent Order.

C. Implementation of this Order Pending Appeal

1. During the resolution of any dispute, Joslyn shall continue to implement those portions of the RI, FS, RAP and RA(s) which the MPCA Director determines can reasonably be implemented pending final resolution of the issues in dispute.

2. If a dispute or an appeal results in or may result in a delay in the implementation of response actions as required by this Consent Order, the MPCA may elect to expend Minnesota Superfund monies under Minn. Stat. §115B.17 (1984) to undertake response actions, including Remedial Investigations, Feasibility Studies and Response Actions at the Joslyn Site, before the dispute is finally

resolved and may file an action against Joslyn in a court of competent jurisdiction to obtain reimbursement of these expenditures.

VI.

Permits

A. The implementation of this Consent Order may require the issuance of governmental permits, authorizations or orders (hereinafter referred to as "permit") by the MPCA or other agencies. This Consent Order is based upon the expectation that the terms and conditions of said permits will be issued consistent with the response activities contained in this Consent Order and the Exhibits thereto.

B. Joslyn shall notify the MPCA Director of all non-MPCA permits which are needed to implement the requirements of this Consent Order and the Exhibits thereto as soon as Joslyn becomes aware of the need for the permit. Joslyn shall provide the MPCA Director with a copy of all such permit applications at the time that the application is submitted to the entity issuing the permit.

C. If a permit is not issued, is issued or is renewed in a manner which is materially inconsistent with the requirements of the approved RI, FS, RAP or RA(s), Joslyn may notify the MPCA Director of its intention to propose modifications to the RI, FS, RAP or RA(s). Notification by Joslyn of its intention to propose modifications must be submitted within seven (7) days of receipt by Joslyn of notification that (1) a permit will not be issued; (2) a permit has been issued or reissued; or (3) a final judicial determination with respect to issuance of a permit has been entered. Within thirty (30) days from the date it submits its notice of intention, Joslyn shall submit to the MPCA Director its proposed modifications to the RI, FS, RAP or RA(s) with an explanation of its reasons in support thereof.

D. The MPCA Director and/or the MPCA Board shall review and approve, disapprove or modify Joslyn's proposed modifications to the RI, FS, RAP or RA(s) in accordance with Part V.B. of this Consent Order. If Joslyn submits proposed modifications prior to a final judicial determination of any appeal taken on a permit needed to implement this Consent Order, the MPCA Director may elect to delay review of the proposed modifications until after such final judicial determination is entered. If the MPCA Director elects to delay review, Joslyn shall continue implementation of this Consent Order as provided in Paragraph E. of this Part.

E. During any judicial review of any permit needed to implement this Consent Order or during review of any of Joslyn's proposed modifications as provided in Paragraph C., above, and during any subsequent judicial proceedings taken in accordance with the provisions of Part V. Joslyn shall continue to implement those portions of the RI, FS, RAP and RA(s) which the MPCA Director determines can be reasonably implemented pending final resolution of the issues in dispute.

## VII.

### Creation of Danger

In the event the MPCA Director determines that activities implementing or in noncompliance with this Consent Order, or any other circumstances or activities, are creating an endangerment or threat of endangerment to the health or welfare of the people on the Joslyn Site or in the surrounding area or to the environment, the MPCA Director may order Joslyn to stop further implementation of this Consent Order for a period of time not to exceed seventy-two hours. In the event that the danger is not fully abated within this time period, the MPCA Director, on behalf of the State, may (1) apply to a court for an ex parte Temporary Restraining Order temporarily restraining Joslyn from further

implementation of this Consent Order for such period of time as needed to abate the endangerment or (2) invoke the emergency powers available to the MPCA under Minn. Stat. § 115B.18, subd. 4 or § 116.11 (1984).

VIII.

Reporting

Joslyn shall submit to the MPCA Director written progress reports which describe the actions which Joslyn has taken during the previous month to implement the requirements of this Consent Order. Progress reports shall also describe the activities scheduled to be taken during the upcoming month. All progress reports shall be submitted by the tenth day of each month following the effective date of this Consent Order. The progress reports shall include a detailed statement of the manner and extent to which the requirement and time schedules set out in the Exhibits to this Consent Order are being met. Unless otherwise specified, progress reports and any other documents submitted pursuant to this Consent Order shall be sent by certified mail, return receipt requested and addressed to:

Bob Dullinger, Project Leader  
Solid and Hazardous Waste Division  
Minnesota Pollution Control Agency  
1935 West County Road B-2  
Roseville, Minnesota 55113

The MPCA Director may, in his discretion, direct that reports be submitted at extended intervals or that no further reports be submitted.

IX.

Project Leaders

The MPCA and Joslyn shall each designate a Project Leader and alternate for the purposes of overseeing the implementation of this Consent Order. Within ten (10) days of the effective date of this Consent Order, Joslyn shall notify the MPCA Director of the name and address of its Project Leader and alternate. The

MPCA Project Leader is Bob Dullinger; the MPCA alternate is Mike Convery. Either party may change its designated Project Leader or alternate by notifying the other party, in writing, of the change. To the maximum extent possible, communications between Joslyn and the MPCA concerning the terms and conditions of this Consent Order shall be directed through the Project Leaders. Each Project Leader shall be responsible for assuring that all communications from the other Project Leaders are appropriately disseminated and processed.

The Project Leaders and alternates shall have the authority to (1) if a visible action level is used, agree to minor changes in the extent of soils to be removed pursuant to the approved Response Action Plan; (2) take samples or direct that samples be taken; (3) direct that work stop for a period not to exceed 24 hours whenever a Project Leader or alternate determines that activities at the Joslyn Site may create an endangerment to public health or welfare or the environment; (4) observe, take photographs and make such other reports on the progress of the work as the Project Leader or alternate deems appropriate; (5) review records, files and documents relevant to this Consent Order; and (6) make or authorize minor field modifications in the Exhibits to this Consent Order or in techniques, procedures or design utilized in carrying out this Consent Order which are necessary to the completion of the project. Any field modifications shall be approved orally by all Project Leaders. Within forty-eight (48) hours following the modification, the Project Leader who requested the modification shall prepare a memorandum detailing the modification, and the reasons therefore, and shall provide or mail a copy of the memorandum to the other Project Leaders. No field modification which would require activities inconsistent with the requirements of the Exhibits to this Consent Order may be undertaken.

X.

Sampling and Data/Document Availability

The MPCA Director and Joslyn shall make available to each other the results of sampling, tests or other data generated by any of them, or on their behalf, with respect to the implementation of this Consent Order. Any party hereto taking samples concerning the Joslyn Site shall allow the other party upon request, to take split or duplicate samples during sample collection conducted during the implementation of this Consent Order. The party taking the samples shall endeavor to notify the Project Leaders for the other parties not less than five (5) days in advance of any sample collection. If it is not possible to provide five (5) days prior notification, the party taking samples shall notify the Project Leaders for the other parties as soon as possible after becoming aware that samples will be collected.

XI.

Retention of Records

Joslyn shall retain in its possession all records and documents related to the disposal of hazardous substances at the Joslyn Site and all records and data related to the implementation of this Consent Order. Joslyn shall preserve these records, documents, reports and data for a minimum of three years after the termination of this Consent Order despite any document retention policy to the contrary.

XII.

Confidential Information

Joslyn may assert a business confidentiality claim covering part or all of the information requested by this Consent Order pursuant to Minn. Stat. Ch. 13.03, 13.37, and § 116.075. Analytical data shall not be claimed as confidential by Joslyn. Information determined to be confidential by the MPCA Director shall be

afforded protection under Minn. Stat. Chapter 13 and § 116.075. If no such claim accompanies the information when it is submitted to the MPCA Director, the information may be made available to the public by the MPCA Director without further notice to Joslyn.

XIII.

Access

The MPCA or their authorized representatives shall have authority to enter the Joslyn Site at all reasonable times for the purposes of inspecting records, operating logs and contracts relevant to implementation of this Consent Order; reviewing the progress of Joslyn in implementing this Consent Order; conducting such tests as the MPCA Director or their Project Leaders deem necessary; and verifying the data submitted to the MPCA by Joslyn. Joslyn shall honor all reasonable requests for such access by the MPCA conditioned only upon presentation of proper credentials.

For property which is not owned by Joslyn, Joslyn shall use its best efforts to obtain access to property upon which Joslyn, its contractors, and the MPCA will be required to enter or conduct work in order to carry out the terms of this Consent Order. Joslyn shall not be required to pay unreasonable access fees as part of its efforts to obtain access.

If Joslyn is unable to obtain access to property not owned by Joslyn, the MPCA agrees to exercise its authority under Minn. Stat. § 115B.17, subd. 4 (Supp. 1983) to obtain access. If the MPCA is required to exercise such authority, Joslyn shall submit to the MPCA, prior to commencement of work at the property not owned by Joslyn, a list of the persons who will be required to enter the property not owned by Joslyn. The persons on the list shall be considered agents of the MPCA for the sole purpose of obtaining access under Minn. Stat. § 115B.17, subd. 4, to take investigative and response actions

necessary to implement this Consent Order. It is understood that Joslyn, its officers, employees, agents and contractors are not considered the agents or employees of the MPCA except for purposes of obtaining access under this Part of this Consent Order.

XIV.

Hold Harmless Agreement

Joslyn agrees to indemnify and save and hold the MPCA, their agents and employees harmless from any and all claims or causes of action arising from or on account of acts or omissions of Joslyn, its officers, employees, agents, or contractors in implementing the activities pursuant to this Consent Order; provided, however, that Joslyn shall not indemnify the MPCA nor save nor hold its employees and agents harmless from any claims or causes of action arising out of the acts or omissions of the MPCA, or their employees and agents.

Joslyn shall have the right to control the defense against any claim or cause of any action, or portion thereof, under this Part if Joslyn agrees that this Part requires it to indemnify and hold harmless the MPCA with regard to the claim or cause of action, or portion thereof. In such circumstances, the MPCA agrees to assist Joslyn in the defense of the claim or cause of action to the extent that the defense of the claim or cause of action is not inconsistent with this Consent Order.

XV.

Other Claims

Nothing herein is intended to release any claims, causes of action or demands in law or equity against any person, firm, partnership or corporation not a signatory to this Consent Order for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling,



transportation, disposal or release of any pollutant, contaminant or hazardous substances at, to, or from the Joslyn Site.

The MPCA shall not be held as a party to any contract entered into by Joslyn to implement the activities pursuant to this Consent Order.

XVI.

Other Applicable Laws

All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable local, State and Federal laws and regulations, including laws and regulations related to occupational safety and health. In the event there is a conflict in the application of Federal or State or local laws or regulations, the more stringent of the conflicting provisions shall apply.

XVII.

Recovery of Expenses

Within thirty (30) days of the effective date of this Consent Order, Joslyn shall pay into the Environmental Response, Compensation and Compliance Fund of the Treasury of the State of Minnesota the sum of \$17,293.00 as reimbursement of the MPCA's expenditures incurred in connection with the investigation of the Joslyn Site. Payment of this sum shall be in full and complete satisfaction of all past monetary claims of the MPCA for expenditures made prior to December 31, 1984.

Joslyn also agrees to reimburse the MPCA for reasonable costs associated with any MPCA activities related to the implementation of this Consent Order. The amount of future reimbursement to the Funds shall not exceed \$100,000 plus laboratory expenses for the MPCA's future expenses. Within thirty (30) days of the end of each calendar year, the MPCA will submit to Joslyn an itemized statement of its expenses for the previous year. Within sixty (60) days

following receipt of the itemized statement, Joslyn shall pay, the required sum into the Environmental Response, Compensation and Compliance Fund of the Treasury of the State of Minnesota.

XVIII.

Amendment of Order

This Consent Order may only be amended by a written agreement between Joslyn and the MPCA.

XIX.

Financial Responsibility

Within thirty (30) days of the effective date of this Consent Order, Joslyn shall provide to the MPCA Director proof of financial responsibility in an amount sufficient to cover the projected costs of implementation of the RAP and the projected costs of any corrective action which may be necessary. Proof of financial responsibility may be shown by use of the financial test described in Minnesota Rules Chapter 7045, Part 7045.0514, Subd. 7.

XX.

Liability Insurance

Within thirty (30) days of the effective date of this Consent Order, Joslyn shall, provide the MPCA Director with current certificates of insurance certifying coverage for general liability with minimum limits of \$1,000,000 per occurrence per facility with an annual aggregate of at least \$2,000,000, exclusive of legal defense costs, for bodily injury and property damage liability combined and containing the provision that the insurance shall not be cancelled for any reason except after thirty (30) days notice to the MPCA Director. These insurance limits are not to be construed as maximum limits. Joslyn is solely responsible for determining the appropriate amount of insurance

it should carry for injuries or damages resulting from its activities in the implementation of this Consent Order.

XXI.

Covenant Not to Sue

. In consideration of Joslyn's performance of the terms and conditions of this Consent Order, and in the absence of material facts showing a release or threatened release giving rise to an actual or potential concern for the environment, public health, or welfare not evident on the effective date of this Consent Order, the MPCA agree that compliance with this Consent Order shall stand in lieu of any administrative, legal and equitable remedies available to the MPCA regarding the release or threatened release of hazardous substances from the Joslyn Site; except that nothing in this Consent Order shall preclude the MPCA from exercising any administrative, legal and equitable remedies available to the MPCA to require additional actions by Joslyn in the event that the implementation of the requirements of this Consent Order are insufficient to remedy the release or threatened release of hazardous substances at the Joslyn Site, provided that the mere availability of a more effective remedy shall not be the sole basis for additional action.

However, such additional actions if necessary, will be the subject of a different agreement or proceeding, and Joslyn retains all its rights to challenge any administrative legal, or equitable remedies the MPCA may seek against Joslyn at that time.

Nothing herein shall waive the MPCA's right to enforce this Consent Order, or to take any action authorized by Minn. Stat. Ch. 115B or any other law should Joslyn fail to maintain compliance with this Consent Order.

XXII.

Failure to Make Timely Submittals

A. For each week or portion thereof that Joslyn fails without reasonable cause as contemplated in Part XXIII to make a submittal to the MPCA Director in accordance with the time schedules contained in the Exhibits to this Consent Order or any other time schedule approved or modified by the MPCA Director, Joslyn shall be obligated to pay into the Environmental Response, Compensation and Compliance Fund of the Treasury of the State of Minnesota the sum of five hundred dollars (\$500).

B. Joslyn shall not be liable for payment under this Part if it has submitted to the MPCA Director a timely request for an extension of schedules under Part XXIII of this Consent Order and such request has been granted.

C. Upon determination by the MPCA Director that Joslyn has failed to make a submittal referenced herein, the MPCA Director shall immediately give written notice to Joslyn of the failure, specifying the provision of the Consent Order which has not been complied with. Joslyn shall pay the requested sum within thirty (30) days of receipt of notification from the MPCA Director that payment is due. Joslyn retains the right to dispute under Part V.A. the factual basis for the MPCA Director's determination that a submittal has not been made in a timely fashion. However, Joslyn waives any rights it may have to challenge, on legal grounds, the requirement that it make payments under this Part.

D. Payments required by this Part shall accrue from the date on which the submittal was to have been made or the date from which Joslyn deviates from the implementation schedule. Payments required by this Part shall cease to accrue when Joslyn delivers the required submittal to the MPCA Director or the date on which Joslyn performs or completes the task required in the implementation schedule.

E. Nothing in this Part shall be construed as prohibiting or in any way limiting the ability of the MPCA to seek civil penalties available under ERLA for any noncompliance with this Consent Order except for noncompliance with the schedules for making submittals.

XXIII.

Extensions of Schedules

Extensions shall be granted if requests for extensions are submitted in a timely fashion and good cause exists for granting the extension. All extensions must be requested by Joslyn in writing. The request shall specify the reason(s) why the extension is needed. Extensions shall only be granted for such period of time as the MPCA Director or MPCA Board determines is reasonable under the circumstances. A requested extension shall not be effective until approved by the MPCA Director or MPCA Board.

The MPCA Director may extend the time schedules contained in this Consent Order for a period not to exceed ninety (90) days except that, if an extension is needed as a result of (1) delays in the issuance of a necessary permit which was timely applied for; (2) judicial review of the issuance, non-issuance or re-issuance of a necessary permit; or, (3) judicial review under Part V of this Consent Order, the MPCA Director may extend the time schedules for a longer period. Extensions of greater than 90 days requested for reasons other than the three specified above may be granted under this Consent Order, but only if authorized by the MPCA Board under Part XVIII of this Consent Order.

The burden shall be on Joslyn to demonstrate to the satisfaction of the MPCA Director or MPCA Board that the request for the extension has been submitted in a timely fashion and that good cause exists for granting the extension. Extensions shall be granted where Joslyn demonstrates that the reasons the extension is needed is due to:

(1) Circumstances beyond the reasonable control of Joslyn, including delays caused by the MPCA;

(2) Review resulting from the good faith invocation by Joslyn of the resolution of disputes section of Part V. of this Consent Order, which review results in delays in implementation of this Consent Order making it impossible for Joslyn to meet the required schedules; and,

(3) Delays which are directly attributable to any changes in permit terms or conditions or refusal to grant a permit needed to implement the requirements of this Consent Order, as contemplated under Part VI. of this Consent Order, if Joslyn filed a timely application for the necessary permit.

(4) Stoppages of work under Part VII, except for such stoppages which result from noncompliance of this Order.

The MPCA Director or MPCA Board's decision on extensions shall be considered a final action of the MPCA subject to judicial review.

#### XXIV.

##### Conveyance of Title

No conveyance of title, easement, or other interest in the Joslyn Site shall be consummated by Joslyn without provision for continued maintenance of any containment system, treatment system or monitoring system installed on its property pursuant to this Consent Order. Joslyn shall notify the MPCA Director by registered mail at least ninety (90) days prior to any conveyance, of Joslyn's intent to convey any interest in land which it owns which comprises the Joslyn Site and of the enforceable provisions made for the continued operation and maintenance of any facility or system installed pursuant to this Consent Order.

XXV.

Successors

This Consent Order shall be binding upon Joslyn, its successors and assigns and the MPCA, its successors and assigns.

XXVI.

Termination

The provisions of this Consent Order shall be deemed satisfied and terminated upon Joslyn's receipt of written notice from the MPCA Director that Joslyn has demonstrated, to the satisfaction of the MPCA, that all the terms of the Consent Order have been completed. Resolution of any dispute regarding a request for termination shall be resolved pursuant to Part V.A. of this Consent Order.

XXVII.

Effective Date

This Consent Order is effective upon the date that the last required signature is affixed thereto.

BY THEIR SIGNATURES HEREON, THE UNDERSIGNED REPRESENT  
THAT THEY HAVE AUTHORITY TO BIND THE PARTIES THEY  
REPRESENT, THEIR AGENTS, CONTRACTORS, AND SUBSIDIARIES  
WITH RESPECT TO PERFORMANCE PURSUANT TO THIS  
CONSENT ORDER

IT IS SO AGREED:

Donald B. Hamister President  
Joslyn Mfg. & Supply Co. Title

May 10, 1985  
Date

Richard C. Paul Secretary  
Joslyn Mfg. & Supply Co. Title

May 10, 1985  
Date

IT IS SO ORDERED:

*Dwight A. Dahlberg*  
Chairperson, Minnesota Pollution Control Agency

May 30, 1985  
Date

*Thomas Kalita*  
Director, Minnesota Pollution Control Agency

May 30, 1985  
Effective Date



## Exhibit A

### REMEDIAL INVESTIGATION AND FEASIBILITY STUDY

#### I. INTRODUCTION

Parts II and III of the Response Order by Consent ("Consent Order"), to which this Exhibit is appended, requires the Joslyn Mfg. and Supply Co. ("Joslyn") to conduct a Remedial Investigation and Feasibility Study (RI/FS) of Joslyn Mfg. and Supply Co. Site ("Joslyn Site"). This Exhibit sets forth the requirements for completing and reporting upon, the RI/FS and is appended to and made an integral and enforceable part of the Consent Order.

#### II. PREPARATION AND REVIEW OF SUBMITTALS

Joslyn shall submit to the Minnesota Pollution Control Agency Director ("MPCA Director") copies of all reports, work plans, well placement and construction plans, quality control plans, and other submittals required by this Exhibit. The review, modification and approval of all submittals shall be governed by Part V.B. of the Consent Order, except that (1) the site safety and security plans described in Part IV of this Exhibit do not require MPCA Director approval and (2) review and modification of the Evaluation Report described in Part VI, Task A.1. shall be governed by the provisions of Part VI, Task A.1. below.

#### III. RETAIN CONSULTANT

Within 10 days of the effective date of the Consent Order, Joslyn shall retain a consultant(s) qualified to undertake and complete the requirements of this Exhibit and shall notify the MPCA Project Leader of the name of that consultant(s).

#### IV. SITE SECURITY AND SAFETY PLANS

Joslyn shall prepare and submit to the MPCA Director for comment (1) a Joslyn Site security plan to limit and control the general public's access to the Joslyn Site and (2) a Joslyn Site safety plan to protect the health and safety of personnel involved in the RI/FS.

The Joslyn Site security plan shall be submitted to the MPCA Director within thirty (30) days of the effective date of the Consent Order.

The Joslyn Site safety plan shall be submitted at the same time that the Proposed Remedial Investigation work plan is submitted, pursuant to Part VI, below. At a minimum, the Joslyn Site safety plan shall incorporate and be consistent with the requirements of:

1. U.S. EPA Order 1440.3 -- Respiratory Protection;
2. U.S. EPA Order 1440.2 -- Health and Safety Requirements for Employees Engaged in Field Activities;
3. U.S. EPA Occupational Health and Safety Manual;
4. OSHA Requirements (29 CFR 1910 and 1926); and,
5. Interim Standard Operating Safety Guide (Revised September, 1982) by the Office of Emergency and Remedial Response.

Joslyn Site security and safety are the responsibility of Joslyn. The MPCA Director may comment on the Joslyn Site security and safety plans but will neither approve nor disapprove those plans.

Within 45 days of the effective date of the Consent Order, Joslyn shall implement the Joslyn Site security plan, taking into account the comments of the MPCA Director, if any. Joslyn shall implement the Joslyn Site safety plan, after considering the comments of the MPCA Director, if any, when it conducts the Remedial Investigation, pursuant to Part VI, below.

#### V. INTERIM REMEDIAL MEASURES

Within 30 days of the effective date of the Consent Order, a fence shall be constructed around disposal pond A to prevent access to the disposal pond.

#### VI. REMEDIAL INVESTIGATION

Joslyn shall design and implement a Remedial Investigation (RI) which accomplishes the purposes and meets the requirements of this Part. The purposes of the RI are (1) to provide information and data needed for the selection and

implementation of appropriate response actions at the Joslyn Site, (2) to assess soil contamination at the Joslyn Site, (3) to assess the extent and magnitude, if any, of any surface water contamination; (4) to assess the extent and magnitude of the ground water contamination at, beneath and in the vicinity of the Joslyn Site; (5) to assess the volume and characteristics of the hazardous substances identified at the Joslyn Site; (6) to identify the sources of the hazardous substances released at the Joslyn Site; (7) to identify the medium and the pathways by which contamination has reached the affected media; (8) to identify the location of existing wells to the east and south of the Joslyn Site; and, (9) to identify any actual or potential for human or environmental exposure. The requirements of the RI are set forth in the three Tasks below.

Joslyn shall propose methods in the monthly reports (submitted pursuant to Part VIII of the Consent Order) for any necessary additional RI activities not included in the RI Work Plan as approved and shall describe in the monthly reports the impact of the additional RI activities on the list of Feasible Alternative Response Actions derived pursuant to Part VI, Task A below. If any additional RI activities will adversely affect work scheduled through the end of the upcoming next month or will require significant revisions to the RI Work Plan as approved, the MPCA Project Leader shall be notified immediately of the situation followed by a written explanation within ten (10) days of the initial notification.

Any dispute regarding the MPCA Director's review, modification and/or approval of the Evaluation Report, Remedial Investigation Work Plan, List of Feasible Alternative Response Actions, Quality Assurance/Quality Control Plan and Remedial Investigation Final Report shall be resolved pursuant to Part V.B. of the Consent Order.

DISPUTE RESOLVED

Task A. Submit an Evaluation Report, Proposed Remedial Investigation Work Plan, List of Feasible Alternative Response Actions, and Quality Assurance/Quality Control Plan

Within 45 days of the effective date of the Consent Order, Joslyn shall submit for the MPCA Director review, modification, and/or approval, an Evaluation Report, a Proposed Remedial Investigation Work Plan (RI Work Plan) a List of Feasible Alternative Response Actions, and a Quality Assurance/Quality Control Plan (QA/QC Plan).

The Evaluation Report shall contain the information set forth in Task A.1. below. If the Evaluation Report does not meet the requirements of Task A.1. below, the MPCA Director will return it within ten (10) days for modification by Joslyn. Joslyn shall, within ten (10) days of receipt of MPCA Director comments, resubmit the modified Evaluation Report.

The Proposed RI Work Plan and the List of Feasible Alternative Response Actions shall contain the information set forth in Task A.2.a. and b. below. The QA/QC Plan shall contain the information set forth in Task A.3. below.

1. Evaluation Report

a. Site background

The Evaluation Report shall include a detailed explanation of the operational history, location, pertinent area boundary features, general physiography, hydrology, stratigraphy, and geology of the Joslyn Site. In addition, the Evaluation Report shall include a detailed discussion of all past activities related to the release or threatened release and disposal of hazardous substances at the Joslyn Site.

b. Topographic survey

The Evaluation Report shall include Joslyn Site maps using a one inch = 100 feet scale and a two foot contour interval. Surface water features, buildings, process areas, well locations, forested areas, utilities, paved areas,

easements, right-of-ways, pipelines (surface and subsurface) and impoundments shall be shown. The maps shall be of sufficient detail and accuracy to locate all current or proposed future work at the Joslyn Site.

c. History of remedial or removal actions

The Evaluation Report shall include a summary of any previous response actions conducted at the Joslyn Site. This summary shall include field inspections, sampling surveys, cleanup activities, and other technical investigations as well as any removal or remedial action taken at the Joslyn Site.

2. Remedial Investigation at the Joslyn Site

a. Proposed Remedial Investigation Work Plan

Joslyn shall submit a proposed RI Work Plan which, upon implementation will assess the actual or potential endangerment to public health, welfare and the environment from the Joslyn Site and, (a) will provide information and data needed for the selection of the feasible alternative response actions at the Joslyn Site; (b) will assess the volume of sludge and contaminated soil at the Joslyn Site; (c) will assess the extent and magnitude, if any, of surface water contamination of Twin Lakes from the Joslyn Site; (d) will assess the extent and magnitude of ground water contamination at the Joslyn Site; and, (e) will produce sufficient data and information to allow Joslyn to submit the report described in Task C, below.

At a minimum, the proposed RI Work Plan shall include methodologies to accomplish the following RI activities and shall also include dates and time intervals for initiation and completion of each of the following RI activities:

(1) Hydrogeologic Investigation.

The RI Work Plan shall include a program and time schedule to determine the nature and extent of ground water contamination. The sampling program shall establish procedures for determining the location of

water bearing strata and other subsurface geologic features; ground water flow direction; vertical and horizontal distribution of contaminants; background levels of contamination; and the ability of the facility and local geology to control or contain the contaminants.

The sampling program also shall establish procedures for evaluating the long-term disposition of contaminants in terms of mobility of the contaminants; attenuation capacity of local soils and other geologic features; regional flow direction and quantity; effects of local pumping; and the presence of discharge/recharge areas.

At a minimum the RI Work Plan shall include:

- a. A proposal and schedule for the exact location, construction, frequency of sampling, sampling methods, and parameters for analysis of the shallow drift monitoring well to the west of disposal pond A to replace monitoring well 1 that was destroyed;
- b. A proposal and schedule for the exact location, construction, frequency of sampling, sampling methods, and parameters for analysis of an upgradient monitoring well to the west of disposal pond A near the upgradient drift monitoring well. This well shall be completed in the second significant aquifer formation;
- c. A proposal and schedule for the exact locations, construction, frequency of sampling, sampling methods, and parameters for analysis of both basal drift/St. Peter formation monitoring wells downgradient of waste disposal pond A; and,
- d. A proposal and schedule for the exact locations, construction, frequency of sampling, sampling methods, and parameters for analysis of both basal drift/St. Peter formation monitoring wells to the east of Highway 100.

(2) Soils Investigation

The RI Work Plan shall include a proposed program and time schedule to determine the nature and vertical and horizontal extent of contamination of surface and subsurface soils. The program may provide for the use of cores from ground water monitoring wells to serve as soils samples.

At a minimum the RI Work Plan shall include:

A proposal and schedule for the completion of soil borings or backhoe trenching to determine the extent and degree of hazardous substances in the soil, including the area west of disposal pond A near the lake, the area of disposal pond B, and the area of the

unfinished warehouse foundation (see map of the Joslyn Site attached to the Consent Order as Attachment A). The proposal shall include the exact locations of the proposed soil borings or backhoe trenching, the locations of sampling, sampling methods, and parameters for analysis.

(3) Surface Water Investigation.

The RI Work Plan shall include a proposed program and time schedule to determine the nature and extent of contamination of surface water of Twin Lakes. This program shall be of sufficient detail such that, when implemented, it will generate data to evaluate the impacts of the hazardous substances on the floral and faunal communities in the surface water of Twin Lakes and any adjacent wetlands.

At a minimum the RI Work Plan shall include:

A proposal, schedule, location of sampling, sampling methods, and parameters for analysis for a sampling program for Twin Lakes.

(4) Routine Monitoring

The RI Work Plan shall include a proposed program and time schedule for implementing a routine monitoring program to determine whether hazardous substances in the surface water or the ground water vary with depth, time, season or other factors, and to totally define the extent of the hazardous substances contamination.

At a minimum the RI Work Plan shall include:

A proposal and schedule for frequency of sampling, sampling methods, and parameters for analysis of the existing and additional monitoring wells, the plant well, wells identified as Minnesota unique well numbers 203574 and 203571, and the surface water of Twin Lakes.

(5) Survey and Investigation of Off-Site Water Wells

The RI Work Plan shall include a proposed program and time schedule for locating off site water wells. This program shall establish the uses of downgradient wells, the depth and condition of downgradient wells, pumping rates of the downgradient wells, and suitability of sampling the identified wells.

Within 60 days of approval of the RI Work Plan by the MPCA Director, Joslyn shall provide a study of the appropriateness of sampling and methods and parameters for analysis of downgradient wells identified as being suitable for use in determining the extent and magnitude of



ground water contamination off site, as well as wells that are found to be in the plume of the ground water contamination or potentially in the plume of ground water contamination. The study shall also include the appropriateness of using the identified downgradient wells in the routine monitoring plan described in Task A, 2.(4) above.

b. List of Feasible Alternative Response Actions

Joslyn shall submit, as part of the RI work plan, a List of Feasible Alternative Response Actions which have the potential to be technically feasible, and which would, upon implementation, abate or minimize a release or threatened release at the Joslyn Site. This list shall also contain general information regarding the nature and applicability of the identified alternative response actions.

3. Quality Assurance/Quality Control Plan

Joslyn shall submit a proposed QA/QC Plan to be utilized in implementing the RI Work Plan. The proposed QA/QC Plan shall be consistent with the requirements of the U.S. EPA's Contract Laboratory Program. The proposed QA/QC Plan shall specify the procedures for:

- a. field protocol including procedures for chain-of-custody, sample collection and transportation and storage of samples;
- b. calibration in terms of accuracy, precision, and references (the QA/QC Plan shall also specify the number of times and intervals at which analysis equipment will be calibrated);
- c. laboratory analytical methods, including methods for ensuring accurate measurements of data in terms of precision, accuracy, completeness, comparability, and lab sample storage procedures;
- d. reporting;
- e. internal quality control;
- f. audits;
- g. preventive maintenance;
- h. corrective action; and,



- i. routine assessment of data precision, representativeness, comparability, accuracy, and completeness of specific measurement parameters involved.

Task B. Conduct Remedial Investigation

Within 15 days of written notification of the MPCA Director's approval or modification of the RI Work Plan, the List of Feasible Alternative Response Actions, and the QA/QC Plan, Joslyn shall initiate the RI. Joslyn shall conduct the RI in accordance with the methods and time schedules set forth in the RI Work Plan and QA/QC Plan as approved or modified by the MPCA Director. The RI shall be conducted in accordance with all applicable Federal, State and local laws, rules, regulations and ordinances.

Task C. Report Results of Remedial Investigation

Within 180 days of notification of the MPCA Director's approval or modification of the RI Work Plan and QA/QC Plan, made pursuant to Part VI, Task B above, Joslyn shall prepare and submit to the MPCA Director a report (RI Final Report) detailing the data and results of the RI for the Joslyn Site. The RI Final Report shall organize and present all data, analytical results, boring logs and test results. Further, the RI Final Report shall include a detailed description of the following:

1. Nature and extent of the release or threatened release

Joslyn shall include in the report a description of following:

- a. The volume and characteristics of the hazardous substances identified at the Joslyn Site;
- b. Any medium (e.g., ground water, surface water, soils, air) affected by the hazardous substances at the Joslyn Site;
- c. The pathway(s) (e.g., leachate, multi-aquifer wells, runoff) by which contamination have reached or may reach the media;
- d. The sources of the release (e.g., deposits of sludge, deposited hazardous waste);

- e. The extent and magnitude of contamination in the surface water of Twin Lakes;
- f. Background levels of hazardous substances and statistical comparison of background levels to downgradient and off-site levels;
- g. The extent and magnitude of contamination in the soil and in the waste areas on the Joslyn Site;
- h. The extent and magnitude of ground water contamination beneath and around the Joslyn Site;
- i. The location and condition of existing wells to the east and south of the Joslyn Site; and,
- j. Any actual or potential for human or environmental exposure and the potential adverse effects of such exposure.

2. Analysis of Data in Relation to the Alternative Response Actions

Joslyn shall include in the RI Final Report the list of Feasible Alternative Response Actions identified pursuant to Part VI. Task A.2. as approved or modified by the MPCA Director and Joslyn shall include an analysis as to whether the RI has produced sufficient information to allow for a detailed analysis during the Feasibility Study of each Feasible Alternative Response Action.

Task D. Approval of the RI Final Report

The MPCA Director shall notify Joslyn of approval or modification of the RI Final Report.

If the MPCA Director rejects the RI Final Report, the MPCA Director shall specify the deficiencies and reasons for the rejection. Joslyn shall correct the said deficiencies, and resubmit the RI Final Report to the MPCA Director within thirty (30) days of the notification of rejection. If collection of additional data is necessary to correct the deficiencies, the MPCA Director may extend the due date for that portion of the revised RI Final Report by up to ninety (90) days upon request by Joslyn.

## VII. FEASIBILITY STUDY

The purpose of the Feasibility Study (FS) is to evaluate the feasibility and effectiveness of implementing appropriate alternative Response Actions at the Joslyn Site. Joslyn shall conduct the FS in accordance with the National Oil and Hazardous Substance Contingency Plan, 40 CFR, Section 300.68, (f.), (g.), (h.), and (i.) and the FS shall contain sufficient information and analysis to provide a reasonable basis for the MPCA Director to make the determination of appropriate and necessary extent of remedy consistent with 40 CFR Section 300.68 (j.).

Any dispute regarding the MPCA Director's review, modification and/or approval regarding the objectives to be met by any response action, the alternative response actions to be addressed in the FS, the Alternatives Report, and Detailed Analysis Report shall be resolved pursuant to Part V. of the Consent Order.

The FS shall use and build upon the information generated by the RI and shall consist of the following Tasks.

### TASK A. Establishment of Response Action Objectives

#### 1. General Response Action Objective

The general purpose of implementing any response action at the Joslyn Site is to meet the following objectives: (1) protection of public health, welfare and the environment; (2) the necessary and applicable requirements of Section 300.68 of the National Oil and Hazardous Substances Contingency Plan; and (3) to meet the requirements of any other applicable Federal or State laws.

#### 2. Joslyn Identification of Objectives and Alternative Response Actions

Within thirty (30) days of written notification of the MPCA Director's approval of the RI Final Report made pursuant to Part VI, Task D above, Joslyn shall propose and submit to the MPCA Director a list of objectives to be met by any

response action at the Joslyn Site. At that same time, Joslyn shall also propose and submit to the MPCA Director the alternative response actions which have the potential to accomplish the stated objectives and which have the potential to be technically feasible and based upon sound engineering practice to be addressed in the FS.

The MPCA Director shall notify Joslyn of the approval, modification or rejection of the objectives and alternative response actions to be addressed in the FS. If the MPCA Director rejects any of the objectives or alternative response actions to be addressed in the FS, the MPCA Director shall specify the deficiencies and reasons for the rejection. If the MPCA Director modifies the objectives or alternatives by adding objectives or alternatives, the MPCA Director shall specify the reasons for the additions.

Task B. Alternatives Report

Within 90 days of notification of the MPCA Director's approval of the RI Final Report made pursuant to Part VI, Task D above, Joslyn shall develop and submit to the MPCA Director an Alternatives Report. The Alternatives Report shall provide an evaluation of (a) each of the alternative response actions identified in Part VII. Task A.2., except for those alternatives which have been specifically rejected by the MPCA Director and (b) any other alternative response action(s) identified by Joslyn or the MPCA Director. The purpose of preparing an Alternatives Report is to provide sufficient information on each of the alternative response actions to enable the MPCA Director to reject any possible alternative response actions which are clearly not feasible or effective. (The alternative response actions to be evaluated in the Alternatives Report are referred to below as the "evaluated alternatives.")

1. Discussion of Alternatives

In the Alternatives Report, Joslyn shall analyze the extent to which each of the evaluated alternatives meet each of the above general objectives of Task A.1 and each of the objectives defined under Task A.2 of this Part.

For each evaluated alternative, the following shall be presented in the Alternatives Report:

a. Cost

A preliminary estimate of the capital, operation and maintenance costs associated with installing or implementing each evaluated alternative.

b. Environmental Effects

A general discussion of the expected adverse effects which each evaluated alternative may have on the environment.

c. Effectiveness

A preliminary analysis as to whether each evaluated alternative is likely to effectively abate or minimize the release or threatened release and minimize the threat of harm to the public health, welfare and the environment.

d. Technical Feasibility and Implementability

A preliminary analysis of the technical feasibility and implementability of each evaluated alternative both in relation to the location and conditions of the release or threatened release and in relation to the reliability of the technologies which could be employed to implement the evaluated alternative.

e. Identification of Remedial or Removal Technologies

The Alternatives Report shall include an explanation of the various technologies which may be employed to implement each of the evaluated alternatives and shall summarize the effectiveness, reliability, and availability of each specified technology.

## 2. Joslyn's Review of Evaluated Alternatives

In the Alternatives Report, Joslyn shall preliminarily review each evaluated alternative based upon the criteria set forth in Task C below, and recommend which evaluated alternatives, or combination of alternatives should be reviewed in the Detailed Analysis Report:

Following discussion of each evaluated alternative or combination of alternatives, Joslyn shall make a recommendation on the alternative, alternatives, or combination of alternatives (hereinafter referred to as the "recommended alternatives") to be addressed in the Detailed Analysis Report and a recommendation on the scope of the detailed analysis of the recommended alternatives to be included in the Detailed Analysis Report.

The recommended alternatives shall be technically feasible, environmentally effective, based upon sound engineering practice and upon implementation would abate or minimize a release or threatened release at the Joslyn Site.

### Task C. MPCA Director Review of Evaluated Alternatives

Upon receipt of the Alternatives Report submitted pursuant to Part VII, Task B, above, the MPCA Director will review the Alternatives Report for conformance with the objectives set forth pursuant to Task A.1 and A.2. of this Part. The MPCA Director will notify Joslyn in writing of the results of the MPCA Director's review within 30 days of the MPCA Director's receipt of the Alternatives Report.

In determining whether to accept or reject the evaluated alternatives set forth in the Alternatives Report, the MPCA Director will use the following criteria as they relate to the objectives set forth in Task A.1 and A.2. of this Part.

1. Cost

Evaluated alternatives whose estimated costs substantially exceed that of other evaluated alternatives in relation to the benefits which the evaluated alternatives will produce will be eliminated, unless Joslyn explicitly desires to further consider the evaluated alternatives.

2. Environmental effects

Evaluated alternatives that inherently present significant adverse environmental effects will be excluded from further consideration.

3. Effectiveness

Evaluated alternatives that do not satisfy the response action objectives and do not contribute significantly to the protection of public health, welfare or the environment will be rejected. On site hazardous substance control alternatives must achieve adequate control of the hazardous substances in terms of abating or minimizing the release or threatened release. Off-site alternatives must minimize or mitigate the threat of harm to public health, welfare or the environment, or they will be excluded from further consideration.

4. Technical Feasibility and Implementability

Evaluated alternatives that may prove extremely difficult to implement, or that rely on unproven technologies will generally be excluded from further consideration. Evaluated alternatives that are not reliable will be excluded from further consideration.

Task D. Detailed Analysis Report

Within 120 days of the MPCA Director's notification of review of the Alternatives Report made pursuant to Part VII, Task C above, Joslyn shall prepare and submit a Detailed Analysis Report to the MPCA Director on the evaluated alternatives approved (hereinafter referred to as the "remaining

evaluated alternatives") by the MPCA Director. The Detailed Analysis Report shall present the results of an analysis of each of the remaining evaluated alternatives and shall include:

1. Detailed Description

At a minimum, Joslyn shall prepare and present a detailed description for each remaining evaluated alternatives including as applicable:

- a. a description of appropriate treatment and disposal technologies;
- b. a description of the special engineering considerations required to implement each remaining evaluated alternatives (e.g., any additional studies that may be needed to proceed with final response action design);
- c. a description of operation, maintenance, and monitoring requirements of each remaining evaluated alternatives;
- d. a description of off-site disposal needs and transportation plans;
- e. a description of temporary storage requirements;
- f. a description of safety requirements associated with implementing each remaining evaluated alternatives, including both on-site and Joslyn owned and operated off-site health and safety considerations;
- g. a description of how any of the other remaining evaluated alternatives could be combined with this evaluated alternative and how any of the combinations could best be implemented to produce significant environmental improvements or cost savings; and,
- h. a review of on-site and identification of off-site treatment or disposal facilities included for each remaining evaluated alternatives for compliance with applicable requirements of the Resource Conservation and Recovery Act (RCRA), the MPCA hazardous waste rules, and the U.S. and Minnesota Departments of Transportation rules.



## 2. Environmental Assessment

At a minimum, Joslyn shall prepare and present in the Detailed Analysis Report an environmental assessment for each remaining evaluated alternatives including an evaluation of the alternative's environmental effects, an analysis of measures to mitigate adverse effects, any physical or legal constraints, and compliance with applicable Federal and State regulatory requirements.

Each remaining evaluated alternatives shall be assessed in terms of the extent to which it will abate or mitigate damage to, or protect public health, welfare and the environment.

## 3. Cost Analysis

Joslyn shall analyze and present in the Detailed Analysis Report a breakdown of the present value capital cost and annualized cost of implementing each remaining evaluated alternatives (and each phase of each remaining evaluated alternatives, as appropriate) as well as the present value annual operating and maintenance costs. The costs shall be presented as both a total cost and equivalent annual cost.

## 4. Conceptual Design

Joslyn shall include in the Detailed Analysis Report the conceptual design for which remaining evaluated alternative (or combination of remaining evaluated alternatives) that Joslyn recommends should be installed or implemented at the Joslyn Site. The purpose of preparing a conceptual design is to illustrate all aspects of the recommended evaluated alternative (or combination) in sufficient detail to enable the MPCA Director to fully evaluate the recommended evaluated alternative (or combination). The conceptual design shall include, where appropriate:

- A conceptual plan view drawing of the overall site, showing general locations for project actions and facilities.

- Conceptual layouts (plan and cross sectional views where necessary) for the individual facilities, other items to be installed, or actions to be implemented.
- Conceptual design criteria and rationale.
- A description of types of equipment required, including approximate capacity, size and materials of construction.
- Process flow sheets, including chemical consumption estimates and a description of the process.
- An operational description of process units or other facilities.
- A description of unique structural concepts for facilities.
- A description of operation and maintenance requirements.
- A discussion of potential construction problems.
- Right-of-way requirements.
- A description of technical requirements for environmental mitigation measures.
- Additional engineering data required to proceed with design.
- A discussion of permits that are required pursuant to environmental and other statutes, rules and regulations.
- Order-of-Magnitude implementation cost estimate.
- Order-of-Magnitude annual O&M cost estimates.
- Estimated implementation schedule.
- Preliminary project schedule.

Task E. Approval of Detailed Analysis Report

The MPCA Director shall review and approve, modify, or reject the Detailed Analysis Report based on the objectives and criteria set out in Tasks A and C of this Part.

If the MPCA Director approves or modifies the Detailed Analysis Report, the MPCA Director shall so notify Joslyn.

The MPCA Director may reject the Detailed Analysis Report for either or both of the following two reasons: (1) inadequate performance of Tasks D.1., D.2.,

and/or D.3., and (2) presentation under Task D.4. of an unacceptable recommended evaluated alternative and/or conceptual design.

If the MPCA Director rejects the Detailed Analysis Report, for reason (1) above, Joslyn shall correct the deficiencies and submit a revised Detailed Analysis Report to the MPCA Director within thirty (30) days after receiving a notice of rejection.

If the MPCA Director rejects the Detailed Analysis Report for reason (2) above, Joslyn shall recommend for review by the MPCA Director another evaluated alternative and conceptual design and shall develop and submit its proposal to the MPCA Director within thirty (30) days after receiving a notice of rejection.

If collection of additional data is necessary to propose another response action alternative, the MPCA Director may extend the due date for resubmittal of the proposal by up to ninety (90) days upon request by Joslyn.

For the purposes of Exhibit B to the Consent Order, the evaluated alternative that is approved or modified by the MPCA Director pursuant to this Part is referred to as the approved response action(s) (RA(s)).

## Exhibit B

### RESPONSE ACTION PLAN AND RESPONSE ACTION IMPLEMENTATION

#### I. INTRODUCTION

Part IV of the Response Order by Consent (Consent Order), to which this Exhibit is appended, requires the Joslyn Mfg. and Supply Co. (Joslyn) to prepare a Response Action Plan (RAP) and implement Response Action(s) (RA's) at the Joslyn Mfg. and Supply Co. Site (Joslyn Site). This Exhibit sets forth the requirements for preparing the RAP and implementing the RA(s). Any dispute regarding this Exhibit shall be resolved pursuant to Part V of the Consent Order.

#### II. PREPARATION AND REVIEW OF SUBMITTALS

Joslyn shall submit to the the MPCA Director all reports, detailed plans and specifications, work plans, well placement and construction plans, quality assurance/quality control plans, and other submittals required by this Exhibit. The review and approval, modification or rejection of each submittal shall be governed by Part V of the Consent Order, except that the Joslyn Site safety and security plans described in Part IV of this Exhibit do not require MPCA Director approval.

#### III. RETAIN CONSULTANT

Within 30 days of notification of the alternative selected by the MPCA Director made pursuant to Part VII, Task E of Exhibit A to the Consent Order, Joslyn shall retain a consultant(s) qualified to undertake and complete the requirements of this Exhibit and shall notify the MPCA Project Leader of the name of that consultant(s).

#### IV. SITE SECURITY AND SAFETY PLANS

Joslyn shall prepare and submit to the MPCA Director for comment (1) a Joslyn Site security plan to limit and control the general public's access to the Joslyn Site and (2) a Joslyn Site safety plan to protect the health and safety of personnel involved in implementing the RA's.

The Joslyn Site security and safety plans shall be submitted at the same time that the proposed RAP is submitted, pursuant to Part V, below. At a minimum, the Joslyn Site safety plan shall incorporate and be consistent with the requirements of:

1. EPA Order 1440.3 -- Respiratory Protection;
2. EPA Order 1440.2 -- Health and Safety Requirements for Employees Engaged in Field Activities;
3. EPA Occupational Health and Safety Manual;
4. OSHA Requirements (29 CFR 1910 and 1926); and,
5. Interim Standards Operating Safety Guide (Revised September, 1982) by the Office of Emergency and Remedial Response.

Joslyn Site security and safety are the responsibility of Joslyn. The MPCA Director may comment on the Joslyn Site security and safety plans but will neither approve nor disapprove those plans.

Joslyn shall implement the Joslyn Site security and safety plans, taking into account the comments of the MPCA Director, if any, when it implements the RA's, pursuant to Part VI, below. Joslyn shall use reasonable efforts to see that no lapse in Joslyn Site security or safety occurs in the time interval between completion of Remedial Investigation/ Feasibility Study actions at the Joslyn Site and the implementation of this Part IV.

V. RAP WORK PLAN

Within 30 days of retaining a consultant pursuant to Part III above, Joslyn shall prepare and submit to the MPCA Director for review and approval, modification, or rejection a work plan (RAP Work Plan) for preparation of a RAP. The RAP Work Plan shall, at a minimum, specify all of the reports and plans which must be produced and subjects which must be addressed in the RAP in order to perform the RA(s) approved by the MPCA Director pursuant to Part VII, Task E of Exhibit A to the Consent Order. At a minimum, the RAP Work Plan shall include proposed methodologies and time schedules for all subjects which are listed in Part VI below. If the RAP Work Plan is rejected, Joslyn shall correct the deficiencies and submit a revised RAP Work Plan to the MPCA Director within fourteen (14) days after receiving a notice of rejection.

VI. RESPONSE ACTION PLAN

Joslyn shall prepare a proposed RAP which accomplishes the purposes and meets the requirements of this Part. The proposed RAP shall be prepared in accordance with the methodologies and time schedules in the RAP Work Plan, as approved or modified by the MPCA Director, and shall be submitted to the MPCA Director for review and approval, modification or rejection within the time schedule set forth in the approved RAP Work Plan. The purpose of the RAP is to provide a detailed design of RA(s) approved by the MPCA Director pursuant to Part VII, Task E of Exhibit A to the Consent Order which, upon implementation, will protect the public health, welfare, and the environment from the threatened or actual release of hazardous substances associated with the Joslyn Site. The proposed RAP shall consist of the following three Tasks.

Task A. Remedial Design

As part of the proposed RAP, Joslyn shall submit a proposed remedial design for the Joslyn Site for RA(s) approved by the MPCA Director pursuant to Part VII, Task E of Exhibit A. The purpose of the remedial design is to specify detailed methods and time schedules for the approved RA(s) at the Joslyn Site. The remedial design shall include, but not be limited to, construction plans and specifications, disposal methods, a listing of necessary permits, general closure and post closure plans, a plan to assess the effectiveness of the remedial action(s), and contingency plans.

Task B. Quality Assurance/Quality Control Plan

As part of the proposed RAP, Joslyn shall submit a proposed Quality Assurance/Quality Control Plan (QA/QC Plan) to be utilized during implementation of the RA(s) and during long term monitoring of the effectiveness of the implemented RA(s). The proposed QA/QC Plan shall be prepared so as to be consistent with the requirements of the U.S. EPA's Contract Laboratory Program. The proposed QA/QC Plan shall specify the procedures for:

- a. field protocol including procedures for chain-of-custody, sample collection and transportation and storage of samples;
- b. calibration in terms of accuracy, precision, and references (the QA/QC Plan shall also specify the number of times and intervals at which analysis equipment will be calibrated);
- c. laboratory analytical methods, including methods for ensuring accurate measurements of data in terms of precision, accuracy, completeness, and comparability;
- d. reporting;
- e. internal quality control;
- f. audits;
- g. preventive maintenance;
- h. corrective action; and,
- i. routine assessment of data precision, representativeness, comparability, accuracy, and completeness of specific measurement parameters involved.

Task C. Response Action Monitoring Plan

As part of the proposed RAP, Joslyn shall submit a proposed RA(s) monitoring plan (Monitoring Plan) for the Joslyn Site. The purpose of the Monitoring Plan is to specify monitoring of surface water, soils, and ground water which is necessary to determine the long term effectiveness of the RA(s) to be implemented at and near the Joslyn Site and to assure protection of the public health. The Monitoring Plan shall, at a minimum, contain the following:

1. Analytical parameter list;
2. Sampling and Analytical Protocol;
3. Monitoring well design;
4. Water level monitoring;
5. Regional ground water monitoring;
6. Twin Lake monitoring; and,
7. Reports.

1. Analytical Parameter List

Joslyn shall propose in the Monitoring Plan a list of analytical parameters that shall be analyzed for during implementation of the approved monitoring plan.

2. Sampling and Analytical Protocol

Joslyn shall propose in the Monitoring Plan a laboratory quality assurance/quality control protocol and a summary of sampling and analytical procedures to be followed in analyses required by this Exhibit. The proposed quality assurance/quality control protocol and the sampling and analytical procedures shall be consistent with the procedures outlined in Part VI Task B to this Exhibit.



Joslyn shall submit the name(s) of the primary laboratory(ies) which will be performing analyses, the name of any other laboratory which may provide backup services, and the turnaround time (the time interval from receipt of samples to completion of analysis) which the primary laboratory has agreed to provide.

Joslyn shall propose in the Monitoring Plan a method by which Joslyn will allow split or duplicate samples to be taken by the MPCA Project Leader for testing conducted at the Joslyn Site.

3. Monitoring Well Design

Joslyn shall propose in the Monitoring Plan the design for the construction of any monitoring wells and any modification of existing monitoring wells in accordance with the Minnesota Department of Health (MDH) well code.

4. Water Level Monitoring

The Monitoring Plan shall provide for measuring water levels within a hundredth of a foot for each sampling event for all monitoring wells. Results of all water levels shall be referenced to Mean Sea Level.

5. Regional Ground Water Monitoring

a. Monitoring Network

Joslyn shall propose in the Monitoring Plan a Joslyn regional ground water aquifer monitoring network that will indicate the effectiveness of the RA(s) to be implemented at the Joslyn Site.

b. Sampling Frequency

Joslyn shall sample all monitoring wells specified in the regional ground water aquifer monitoring network identified in 5.a. above on a quarterly basis during the first year of the response action implementation specified in Part VIII., Task A. of this Exhibit.

6. Twin Lakes Monitoring

If determined to be necessary by the MPCA Director based upon the findings of the RI Final Report and the FS, Joslyn shall propose in the Monitoring Plan the locations of Twin Lakes surface water samples, a sampling schedule, and a list of analytical parameters.

7. Reports

Joslyn shall propose in the Monitoring Plan a reporting procedure to detail the data and results of the implementation of the RA(s) at the Joslyn Site. The reporting procedures shall provide for quarterly and annual monitoring reports. The annual monitoring reports shall include a sampling plan for the next calendar year with an assessment of the monitoring parameters, sampling frequencies, and need for the addition or deletion of monitoring wells or surface water stations.

VII. APPROVAL OF THE RAP

The MPCA Director shall review and approve, modify or reject the proposed RAP which is submitted pursuant to Part VI above.

If the MPCA Director approves or modifies the proposed RAP, the MPCA Director shall so notify Joslyn. If the MPCA Director rejects the proposed RAP, the MPCA Director shall notify Joslyn and specify the deficiencies and reasons for rejection. Joslyn shall correct the deficiencies and resubmit the proposed RAP to the MPCA Director within fourteen (14) days of the notification of rejection.

VIII. RESPONSE ACTION IMPLEMENTATION

Joslyn shall implement the RA(s) specified in the RAP as approved by the MPCA Director pursuant to Part VII above in a manner which accomplishes the purposes and meets the requirements of this Part.

Task A. Conduct RA(s)

Within 30 days of receipt of the MPCA Director's notification, pursuant to Part VII above, of approval or modification of the RAP, Joslyn shall initiate implementation of the RA(s). Joslyn shall implement the RA(s) in accordance with the methodologies and time schedules set forth in the RAP as approved or modified by the MPCA Director. The RA implementation shall be conducted in accordance with all Federal, State, and local laws, rules, regulations and ordinances.

Task B. Report Results of RA Implementation

Within 60 days of the completion of the RA(s) specified in the approved RAP, Joslyn shall prepare and submit to the MPCA Director an RA Final Report which includes the following:

- (1) the data and results of the RA implementation;
- (2) the follow-up actions, if any, which will be taken in the following five year period;
- (3) a certification that all work plans, specifications and schedules have been implemented and completed in accordance with the RAP as approved by the MPCA Director and a listing of any deviations from the approved work plans, specifications and schedules; and,
- (4) an identification of difficulties, if any, encountered during the RA implementation which may reduce the effectiveness of the RA to minimize or mitigate the release or threatened release of hazardous substances from the Joslyn Site, or which may require unanticipated operational or maintenance actions to maintain the effectiveness of any of the implemented RA's.

Task C. Approval of the RA Final Report

The MPCA Director shall review the RA Final Report submitted pursuant to Task B above, determine whether Joslyn's obligations under this Exhibit have been satisfactorily completed, and notify Joslyn. If the MPCA Director determines that Joslyn's obligations under this Exhibit have not been satisfactorily completed, Joslyn shall correct any deficiencies and resubmit the RA Final Report within 30 days of the notification of the MPCA Director's determination.

If the RA Final Report indicates that work has been performed in a manner inconsistent with the requirements of the Remedial Investigation, Feasibility Study, or Response Action Plan, the MPCA Director shall request, in writing, that Joslyn correct the inconsistencies. Joslyn shall make such corrections in a timely manner.

Any disputes concerning whether obligations under this Exhibit have been satisfactorily completed shall be resolved in accordance with Part V.A. of the Consent Order.

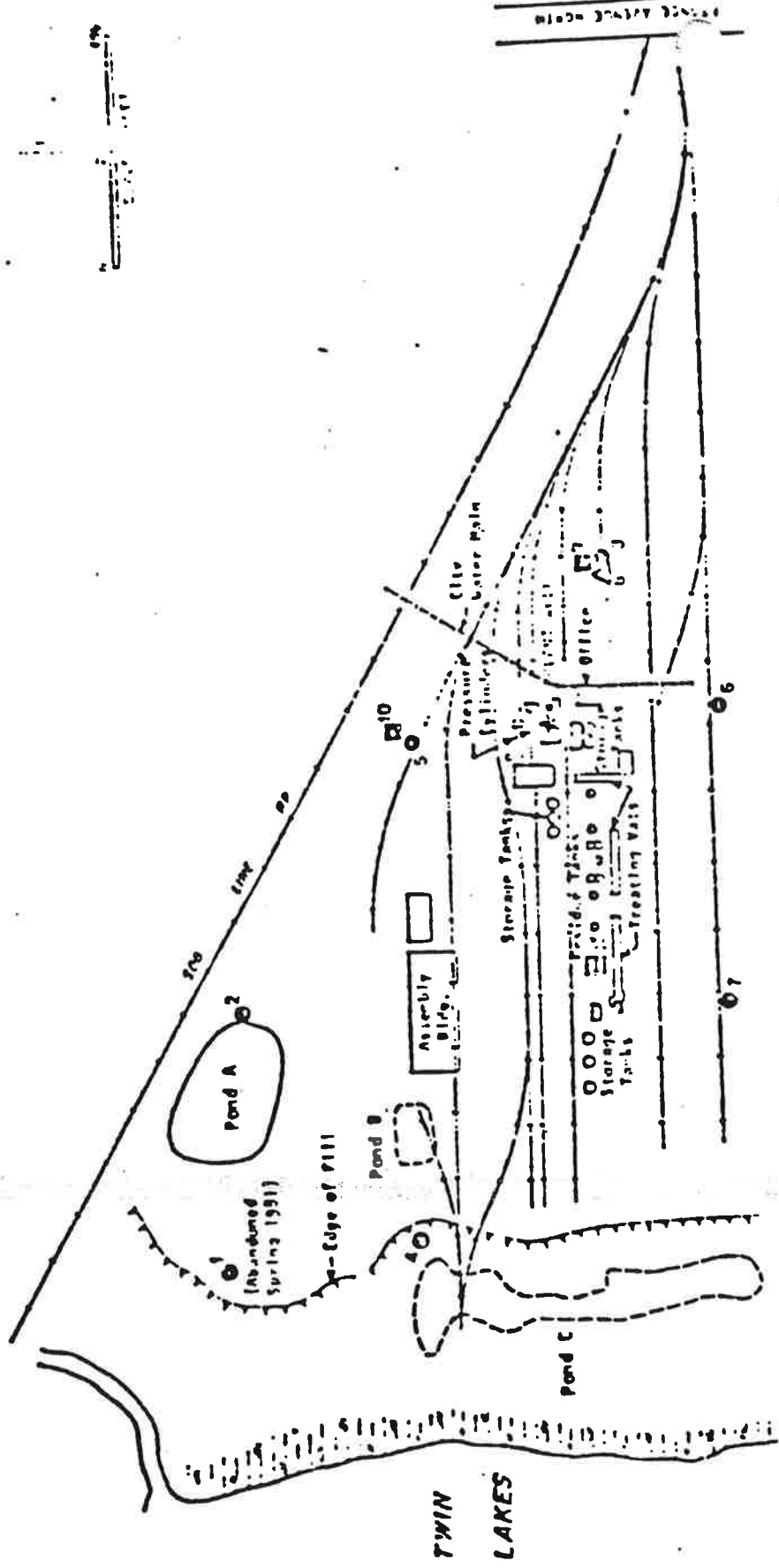


Figure 6  
 MONITORING PIEZOMETERS AND  
 WELL LOCATIONS

- Small Diameter Shallow Piezometer
- 4" Diameter Shallow Well
- △ Small Diameter Deep Piezometer
- \* Plant Water Supply Well

Attachment B - Monitoring Parameters

A.1 Polynuclear Aromatic Hydrocarbons and Heterocycles to be Used for the Joslyn Site Monitoring

A.1.1 LIST 1

	CASRN
benzo(a)anthracene 50-55-3	benzo(g,h,i)perylene 191-24-2
benzo(a)pyrene 50-32-8	dibenzo(a,h)anthracene 53-70-3
chrysene/triphenylene 218-01-9	quinoline 91-22-5
ideno(1,2,3-c,d)pyrene 143-29-5	

A.1.2 LIST 2

1H-indene	fluoranthene
2,3-dihydroindene	pyrene
naphthalene	benzo(b&k)fluoranthene
1-methylnaphthalene	benzo(e)pyrene
2-methylnaphthalene	perylene
biphenyl	acridine
acenaphthylene	carbazole
acenaphthene	2,3-benzofuran
fluorene	benzo(b)thiophene
phenanthrene	dibenzothiophene
anthracene	indole
phenanthridine	

A.2 Phenolic Compounds - (EPA Method 625) to be Used for the Joslyn Site Monitoring

Phenol	4-Chloro-m-cresol
O-,M-,P-Cresol	2-Nitrophenol
2-Chlorophenol	4-Nitrophenol
2,4-Dichlorophenol	2,4-Dinitrophenol
2,4,6-Trichlorophenol	4,6-Dinitro-o-cresol
2,4-Dimethylphenol	Pentachlorophenol

A.3 Inorganic Parameters to be Used for the Joslyn Site Monitoring

Arsenic - Method 206.2 (AA-Furnace) Storet No. 01000

Copper - Method 220.2 (AA-Furnace) Storet No. 01040

Hexavalent Chromium - Method 218.5 (AA-Furnace) Storet No. 01032

Chromium - Method 218.2 (AA-Furnace) Storet No. 01030

## Attachment C - Sampling Protocol

### Sampling Procedures

#### Chain of Custody

All samples taken in compliance with this Exhibit shall be taken in accordance with chain of custody procedures detailed in the Monitoring Plan required by Part VI of this Exhibit. These procedures shall allow the custody of each sample to be traced from the time it is taken until it is analyzed. A chain of custody record shall accompany each sample and shall contain at a minimum the following information:

- A. A unique sample number;
- B. The date, time, and location of sampling;
- C. The name(s) of the person(s) performing the sampling;
- D. An indication of whether the sample was split with any other person, and that person's signature acknowledging receipt; or, if a split sample was offered and refused, a notation to that effect;
- E. The signature of each person to whom custody of the sample was transferred, together with the date and time of transfer;
- F. Preservatives added in the field, if any.