

to the MDEQ pursuant to the Consent Order to the Enforcement and Compliance Assurance Branch of the Waste, Pesticides and Toxics Division of U.S. EPA Region 5. TPI shall invite Walter S. Francis, or another designated representative, of the Enforcement and Compliance Assurance Branch of the Waste, Pesticides and Toxics Division of U.S. EPA Region 5 to participate in all substantive meetings, conferences, or other communications between TPI and the MDEQ regarding implementation of the Consent Order. Mr. Francis' phone number is 312 353-4921; his email address is francis.walt@epa.gov. TPI shall endeavor to schedule such meetings and/or conferences at a time when Mr. Francis, or other designated representative, is available; however, Mr. Francis' or any other designated representative's unavailability shall not be cause to delay any such meeting or conference.

**C. CORRECTIVE ACTION**

14. TPI has advised the United States that it intends to negotiate a corrective action consent order with the MDEQ which will require TPI to implement corrective action, as that term is used in RCRA and its regulations, both within the Alma Refinery property boundary and beyond the Alma Refinery property boundary, as necessary to protect human health and the environment. In light of that stated intention, and subject to Paragraph 104, U.S. EPA has indicated that it shall refrain from exercising its jurisdiction and authority, pursuant to Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), to require TPI to implement corrective action, provided that, unless a corrective action consent order between the MDEQ and TPI is signed and effective by the later of: (i) September 30, 2000; or (ii) thirty (30) days after entry of this Decree, U.S. EPA may take the lead in negotiating a corrective action consent order and in exercising its jurisdiction and authority,

pursuant to Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), to require TPI to implement corrective action.

15. In the course of negotiations with the MDEQ over a corrective action consent order, TPI shall invite Walter S. Francis, or another designated representative, of the Enforcement and Compliance Assurance Branch of the Waste, Pesticides and Toxics Division of U.S. EPA Region 5 to participate in all substantive meetings, conferences, or other communications. Mr. Francis' phone number is 312 353-4921; his email address is francis.walt@epa.gov. TPI shall endeavor to schedule such meetings and/or conferences at a time when Mr. Francis, or other designated representative, is available; however, Mr. Francis' or any other designated representative's unavailability shall not be cause to delay any such meeting or conference. TPI shall also send all correspondence regarding, and drafts and the final copy of, the corrective action consent order to Walter S. Francis, or another designated representative, of the Enforcement and Compliance Assurance Branch of the Waste, Pesticides and Toxics Division of U.S. EPA Region 5, by no later than five (5) Working Days after such documents are transmitted or received.

16. U.S. EPA Region 5 shall be afforded a reasonable time, taking into consideration any interim negotiation deadlines established by the MDEQ and TPI, to review and comment upon all drafts, and the final copy, of the corrective action consent order. If TPI does not receive comments upon all drafts, and the final copy of, the corrective action consent order from U.S. EPA by the later of: (i) the interim negotiation deadline established by the MDEQ and TPI; or (ii) five Working Days after U.S. EPA's receipt of the document, TPI shall be deemed to have complied with the requirement in this Paragraph of affording U.S. EPA with a reasonable time to review and comment.

17. In undertaking corrective action, TPI shall facilitate coordination and planning between corrective action implemented with respect to groundwater under any portion of Horse Creek that may become subject to sediment remediation activities pursuant to Section VI of this Consent Decree and the actual sediment remediation activities that may occur on Horse Creek pursuant to Section VI of this Consent Decree.

**V. SLOTTED GUIDEPOLE EMISSION CONTROLS**

18. Diamond Shamrock Refining Co. currently owns the tanks identified in Exhibit 2; Diamond Shamrock Refining and Marketing Co. currently owns the tanks identified in Exhibit 3; Sigmor Pipeline Co. currently owns the tanks identified in Exhibit 4; TPI Pipeline Corp. currently owns the tanks identified in Exhibit 5; and TPI currently owns the tanks identified in Exhibit 6. The tanks identified in Exhibits 2 through 6 are equipped with slotted guidepoles. By no later than twelve (12) months after entry of this Consent Decree, the guidepole emission control technology described in Exhibit 7 of this Decree shall be installed and fully operational on each of these tanks, with the exception of any such tanks located at the Alma Refinery which TPI cleans and permanently takes out of service by the time the control technology is required to be installed.

19. By no later than thirteen (13) months after entry of this Decree, TPI and the SGP Defendants shall submit a written certification of their compliance with Paragraph 18 of this Decree to the Office of Regional Counsel of U.S. EPA Region 5. Such certification shall be signed by a responsible official and contain the following language:

I certify under penalty of law that the information contained herein is true, accurate, and complete to the best of my knowledge, information and belief, after reasonable inquiry. As to any identified portions of the information to which I cannot personally verify the truth and accuracy, I certify that based on my inquiry of the person or persons directly responsible for gathering the information, the information is true,

accurate, and complete to the best of such person(s)' knowledge, information and belief.

20. TPI and the SGP Defendants shall operate and maintain the guidepole emission control technology installed pursuant to this Consent Decree in accordance with Exhibit 7.

21. TPI and the SGP Defendants shall provide a description of the controls referred to in Paragraphs 18 and 20, and the requirements set forth in those Paragraphs, as a one-time, supplemental submission to the appropriate permitting authorities for the applicable, federally-enforceable permits for the tanks described in Exhibits 2 through 6 of this Consent Decree.

22. TPI and the SGP Defendants shall not seek or obtain emission reduction credits for emission reductions resulting from the application of the guidepole emission control technology described in Exhibit 7 to the tanks described in Exhibits 2 through 6, nor shall TPI or the SGP Defendants use such reductions to offset or net against other emission increases in applying for or obtaining permits required by local, state, or federal law.

## **VI. SEDIMENT REMEDIATION SUPPLEMENTAL ENVIRONMENTAL PROJECT**

### **A. OVERVIEW AND OBJECTIVE**

23. TPI shall perform a Supplemental Environmental Project ("SEP") in which TPI implements and completes a sediment remediation project ("Sediment Remediation Project" or "Project") on selected areas of Horse Creek and/or the Pine River. The Sediment Remediation Project shall be undertaken in compliance with the terms of this Consent Decree and the U.S. EPA-approved work plans, reports, and schedules of implementation submitted pursuant to this Consent Decree. The objective of the Sediment Remediation Project shall be to remediate and restore selected areas of Horse Creek and/or the Pine River consistent with the goal of maximizing positive environmental impacts within the fixed dollar amount allocated to the Project.

**B. PHASES AND REQUIREMENTS OF THE SEDIMENT REMEDIATION PROJECT**

24. Overview. The principal phases of the Sediment Remediation Project shall be: (i) the development and submission of a sediment remediation project work plan; (ii) the implementation of a sediment characterization study; (iii) the development and submission of a sediment characterization report; (iv) the evaluation of sediment remediation alternatives and the selection of one or more of the alternative(s) through a written report; (v) the development of an engineering and design plan to implement the selected sediment remediation alternative(s); (vi) the implementation and completion, subject to the fixed dollar limitation, of the selected sediment remediation alternative(s); and (vii) the submission of a sediment remediation project completion report.

25. Development of a Sediment Remediation Project Work Plan. By no later than 120 days after the entry of this Decree, TPI shall submit to U.S. EPA for approval a sediment remediation project work plan ("Sediment Remediation Project Work Plan"). The Sediment Remediation Project Work Plan shall be a comprehensive document intended to guide the implementation and completion of phases (ii) through (vi) of the Sediment Remediation Project. The Sediment Remediation Project Work Plan shall include the following plans: (a) Project Management Plan; (b) Quality Assurance Project Plan; (c) Community Relations Plan; (d) Health and Safety Plan; and (e) Sediment Characterization Study Plan.

a. Project Management Plan. The Project Management Plan shall: (i) discuss the overall project management strategy, including a discussion of the technical approach to the Project; (ii) set forth the projected schedules of implementation for developing, performing and completing all phases of the Project; (iii) provide a detailed projected budget for the Project; (iv) specify the qualifications, responsibility and authority of all organizations and key personnel -- known at the time of the submission of the Project Management Plan -- who will be involved in

implementation of the Project, including all contractors; (v) set forth the overall management approach to obtaining necessary permits; and (vi) identify data management procedures.

b. Quality Assurance Project Plan (“QAP;P”). TPI shall develop the QAP;P in accordance with the document styled “Content Requirements for Quality Assurance Project Plans for Water Division Programs,” prepared by U.S. EPA Region 5, dated August 1994, and attached hereto as Exhibit 8. The QAP;P shall set forth monitoring procedures, sampling, field measurements and sample analyses performed during implementation of the Sediment Characterization Study, and, to the extent feasible at the start of the Project, during the implementation of the selected sediment remediation alternative(s). The QAP;P shall be designed so as to ensure that data collected are technically sound, statistically valid, and properly documented.

c. Community Relations Plan. The Community Relations Plan shall describe the procedures and methods by which information relating to the Project shall be disseminated to the public. Information that shall be disseminated to the public shall include: (i) the Sediment Remediation Project Work Plan that TPI submits to U.S. EPA pursuant to this Paragraph; (ii) the report that TPI submits to U.S. EPA pursuant to Paragraph 27 that sets forth the results of the sediment characterization study; (iii) the report that TPI submits to U.S. EPA pursuant to Paragraph 28 that evaluates the sediment remediation alternatives and proposes which alternative(s) to select, including any public notice requirements for securing necessary permits; (iv) the engineering and design plan that TPI submits to U.S. EPA pursuant to Paragraph 31; and (v) the project completion report that TPI submits to U.S. EPA pursuant to Paragraph 33.

d. Health and Safety Plan. The Health and Safety Plan submitted as part of the Sediment Remediation Project Work Plan shall address those activities which are known as of the time of the submission of the Project Work Plan, and shall specifically identify health and safety issues that may arise or are anticipated to arise during planned field and laboratory activities.

e. Sediment Characterization Study Plan (“SCS Plan”). The SCS Plan shall be designed to characterize the environmental setting in the Sediment Characterization Study Area (“Study Area”), to identify and characterize, to the appropriate extent given the fixed dollar limitation of the Sediment Remediation Project, the horizontal and vertical nature and extent of contamination in the Study Area, and to identify actual or potential receptors of sediment contaminant effects. The Study Area shall be that area identified in Exhibit 9 to this Consent Decree. The SCS Plan shall include a sampling plan that specifies in detail the location of the proposed samples, the proposed sampling and analytical methods, the proposed sampling parameters, and the proposed methods to evaluate sediment remediation priority. The SCS Plan shall set forth a proposed schedule for implementation of the sediment

characterization study. The SCS Plan shall be designed to result in data of adequate technical content to support the development and evaluation of remediation alternatives and to support the securing of all necessary permits.

26. Implementation of the Sediment Characterization Study. Weather permitting, by no later than sixty (60) days after approval of the Sediment Remediation Project Work Plan, TPI shall commence the sediment characterization study (“Sediment Characterization Study” or “SCS”). TPI shall undertake the SCS in accordance with the plans and schedules approved in the SCS Plan. If weather does not permit TPI to commence the SCS within sixty (60) days after approval of the Project Work Plan, TPI shall promptly notify U.S. EPA, and the Sediment Remediation Project Coordinators identified in Subsection VI.F of this Decree shall work together to identify an appropriate date on which the SCS may commence. For weather-related delays involving commencement of the SCS, TPI shall not be required to comply with the Force Majeure provisions of this Decree for securing a revised commencement date, provided that TPI has engaged in discussions with U.S. EPA’s Sediment Remediation Project Coordinator regarding the matter. If the Sediment Remediation Project Coordinators do not agree upon the need for weather related delays or upon a revised commencement date within ninety (90) days after approval of the Sediment Remediation Project Work Plan, the dispute shall be resolved in accordance with the administrative dispute resolution provisions of Paragraph 41.

27. Development and Submission of a Sediment Characterization Report. By no later than the date set forth in the approved SCS Plan, TPI shall submit a report setting forth the results of its Sediment Characterization Study (“Sediment Characterization Report”), with supporting documentation, including all sediment profile and sediment chemistry data. TPI shall submit the Sediment Characterization Report, including all sampling data and results, in electronic (in database

or spreadsheet format) as well as documentary form. The Sediment Characterization Report shall include an estimate of the volume of sediment in each segment of Horse Creek and/or the Pine River studied, a summary of the chemical quality of each segment studied, an estimate of the volume of the contaminated sediment for the entire Study Area, a summary quality assurance report describing conformance to both field and laboratory quality assurance objectives, and documents identifying the cost of performing the Sediment Characterization Study. U.S. EPA shall have the opportunity to review and comment upon the Sediment Characterization Report within thirty (30) days of receipt.

28. Evaluation of Sediment Remediation Alternatives and Selection of one or more of the Alternative(s). By no later than one hundred eighty (180) days after submitting the Sediment Characterization Report, and based upon the results of the Sediment Characterization Study, TPI shall submit to U.S. EPA for approval a report that: (i) identifies and evaluates the alternatives for the removal, containment, treatment, and/or other remediation of contamination in the Study Area; and (ii) selects one or more of the alternative(s) (“Sediment Remediation Evaluation and Selection Report”).

29. In evaluating the Sediment Remediation Alternatives and selecting one or more of the Alternative(s), TPI shall consider technical, environmental, human health, governmental, local, and cost concerns. TPI shall develop cost estimates for implementation of each remediation alternative.

a. Technical/Environmental and Human Health/Governmental and Local. TPI shall provide a brief description of each remediation measure alternative which includes, but is not limited to, the following: preliminary process flow sheets; preliminary sizing and types of construction for buildings and structures; and estimated quantities of utilities required. TPI shall evaluate each alternative, at a minimum, in the three following areas:

(i) Technical. TPI shall evaluate each remediation alternative based on performance, reliability, feasibility, and safety.

(A) **Performance**. TPI shall evaluate each remediation alternative based on the effectiveness and useful life of the remediation measure.

(I) Effectiveness shall be evaluated in terms of the ability to perform intended functions, such as containment, diversion, removal, destruction, or treatment. The effectiveness of each remediation alternative shall be determined either through design specifications or by performance evaluation. Performance evaluations shall be based on the relevant results of engineering studies and/or effectiveness of the alternative at other sites. Any specific waste or site characteristic which could potentially impede effectiveness shall be considered. The evaluation may also consider the effectiveness of combinations of different remedial alternatives or technologies.

(II) Useful life is defined as the length of time the level of effectiveness can be maintained. Each remediation measure shall be evaluated in terms of the projected service lives of its component technologies. Resource availability in the future life of the technology, as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.

(B) **Reliability**. TPI shall provide information on the reliability of each remediation alternative including its operation and maintenance requirements and demonstrated reliability.

(I) Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance. The availability of labor and materials to meet these requirements shall also be considered.

(II) Demonstrated and expected reliability is a way of measuring the risk and effect of failure. TPI shall evaluate whether the technologies have been used effectively under analogous conditions; whether the combinations of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the remediation measure has the flexibility to deal with uncontrollable changes at the site.

(C) **Feasibility**. TPI shall describe the feasibility of each remediation alternative, including the relative ease of installation (constructability) and the time required to achieve a given level of response.

(I) Constructability is determined by conditions both internal and external to the site conditions, and includes such items as location of

underground utilities, depth to water table, homogeneity of subsurface materials, and location of the site (i.e., remote location versus congested area). TPI shall evaluate what actions can be taken to facilitate construction under these conditions. External factors which affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities.

(II) TPI shall specify the time it will take to implement each remediation alternative discussed.

(D) Safety. TPI shall evaluate each remediation alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as threats to workers during implementation. Factors to consider are fire, explosion, and exposure to hazardous substances.

(ii) Environmental and Human Health. TPI shall assess each alternative to determine its short and long-term beneficial and adverse effects on the environment. Each alternative will be evaluated for its impact on habitat types and plant and animal receptors located in, adjacent to, or affected by the alternative. Receptor impacts include those occurring at the individual level (e.g., mortality, growth and reproductive impairments) and those occurring at higher levels of biological organization (i.e., at population, community, and ecosystem levels). The assessment should include proposed actions for mitigating adverse impacts. Based on available quantitative data, TPI shall assess each alternative in terms of the extent to which it mitigates short and long-term potential exposure to any residual contamination and how it protects human health both during and after implementation of the remediation. Additionally, TPI shall conduct the environmental assessment in accordance with the requirements for securing any permits needed to implement the Sediment Remediation Project.

(iii) Governmental and Local. TPI shall assess the effects of federal, state, and local environmental and public health standards, regulation, advisories, ordinances, or community relations on the design, operation, and timing of each alternative that is considered.

b. Cost Estimate. Based on sound engineering practice, TPI shall develop an estimate of the cost of each remediation alternative (and for each phase or segment of the alternative); provided however, that such costs shall not include costs incurred or to be incurred as a result of closure or corrective action requirements under RCRA, unless such costs are incurred exclusively for the purposes of accommodating this Sediment Remediation SEP. The cost estimate shall consider both capital as well as operation and maintenance costs.

(i) Capital costs consider direct (construction) and indirect (nonconstruction and overhead) costs.

(A) Direct capital costs include:

(I) Construction costs: costs of materials, labor (including fringe benefits and worker's compensation); and equipment required to install the remediation alternative;

(II) Equipment costs: cost of treatment, containment, disposal and/or service equipment necessary to implement the action; and

(III) Land and site-development costs: expenses associated with purchase of land and development of existing property;

(B) Indirect capital costs include:

(I) Engineering expenses: costs of administration, design, construction supervision, drafting, and testing of remediation alternatives;

(II) License or permit costs: administrative and technical costs necessary to obtain licenses and permits for installation and operation;

(III) Startup and shakedown costs: costs incurred during remediation startup; and

(IV) Contingency allowances: funds to cover costs resulting from unforeseen circumstances, such as adverse weather conditions or strikes.

(ii) Operation and maintenance costs are post-construction costs necessary to ensure continued effectiveness of a remediation alternative. TPI shall consider the following operation and maintenance cost components:

(A) Operating labor costs: wages, salaries, training, and overhead associated with the labor needed for post-construction operations;

(B) Maintenance materials and labor costs: costs for labor, parts, and other resources required for routine maintenance of facilities and equipment;

(C) Auxiliary materials and energy: costs of such items as chemicals and electricity of treatment plant operations, water and sewer service, and fuel;