

**Response to Public Comment**  
**Implementation Plan for TMDLs for Dissolved Nickel in the Houston Ship Channel System**  
 July 11, 2001

| Tracking Number | Date Recd.           | Affiliation of Commentor      | Summary of Request or Comment  | Summary of TNRCC Action or Explanation  |
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| 001             | 05/25/01<br>(e-mail) | City of Pasadena Public Works | (a) page 2, Figure 1 – Houston Ship Channel System map in Figure 1 is not legible enough to support text references. | It is difficult to clearly map a watershed as large as that of the HSC within the confines of a document with standard page size. The figure is adequate to generally outline the watershed of and segments within the HSC system. No changes have been made to the implementation plan based on this comment.  |
|                 |                      |                               | (b) page 3, first paragraph – Does TNRCC have a plan to restore, remediate the nickel in the Houston Ship Channel?   | Data collected to prepare the TMDL indicated that there are no exceedances of water quality criteria for dissolved nickel, so no restoration or remediation is needed. The draft implementation plan is the TNRCC plan for assuring that nickel criteria will continue to be met. No changes have been made to the implementation plan based on this comment. |
|                 |                      |                               | (c) page 3, third paragraph – Background sources are not defined.  | Background sources include all sources that are not specifically defined or addressed in the TMDL. For the HSC nickel case, background may be generally considered to consist of dry weather surface runoff and aerial deposition loading. No changes have been made to the implementation plan based on this comment.  |
|                 |                      |                               | (d) page 5, third paragraph – There is no provision made in the effort to validate the model predictions.            | Validation of model calibration to historic conditions is the usual concern. There is no way to validate model predictions of the distant future that are based on very conservative assumptions and statistically improbable scenarios. No changes have been made to the implementation plan based on this comment.  |

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|                 |                      |  | (e) page 8, first paragraph – It is difficult to understand how reductions in nickel loading are determined if only permitted values are used rather than either measuring the values or validating the model output. Have wet/dry conditions been considered, as well as the possibility that all permittees will not be discharging full permitted limits simultaneously?   | Because there are no existing exceedances of the nickel criteria, no actual reduction in nickel loading is needed. Any load reductions will address permitted values to prevent potential future exceedances. Tracking of TMDL allocations is typically based on permitted loads, rather than actual loads that are less than permitted values. The nickel TMDL is based on dry weather conditions, because those are when exceedances of the criteria are most likely to occur. Analyses of scenarios that do not presume simultaneous full-permitted discharge by all sources have been considered, but are not the basis of the draft plan. However, permittees may provide such analyses during the permitting process, and might thereby justify site-specific modifications to the TMDL allocation. No changes have been made to the implementation plan based on this comment. |
| 002             | 05/30/01<br>(Letter) | Bayou Preservation Association   | <p>(a) The BPA is concerned that the marine nickel standard could be exceeded in Tucker Bayou if all dischargers discharged at their permit limits. The BPA agrees that permit limits should be lowered for these industries.</p> <p>(b) The BPA appreciates that industries are currently discharging nickel at concentrations well below their permit limits, and wishes to applaud the voluntary reduction in permitted load that has already been made.</p> <p>(c) The BPA supports the increased monitoring proposed by the Region 12 office, and hopes those sites will be incorporated very soon. The TNRCC has identified Patrick Bayou and Tucker Bayou as water bodies most likely to exceed nickel concentrations, so those waters should receive special attention.</p> | <p>The model analyses were very conservative and account for this scenario. No changes have been made to the implementation plan based on this comment.</p> <p>The commission and staff also appreciate industry efforts to minimize water quality impacts. No changes have been made to the implementation plan based on this comment.</p> <p>Additional monitoring will occur in both Patrick Bayou and Tucker Bayou. No changes have been made to the implementation plan based on this comment.</p>   |
| 003             | 05/30/01<br>(letter) | East Harris County Manufacturers Association; Tischler / Kocurek Environmental Engineers | (a) EHCMA members supported and assisted development of the dissolved nickel TMDL, and are particularly pleased with the cooperative TNRCC-regulated community effort to develop a scientifically-supported ambient water quality database for nickel.  | The commission appreciates the commentor's participation in and support of the Texas TMDL process. No changes have been made to the implementation plan based on this comment.  |

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|                 |  |   | (b) EHCMA concurs that the absence of current exceedances of nickel standards in the HSC system demonstrates that no special monitoring program is required for nickel.  | No changes have been made to the implementation plan based on this comment.   |
|                 |  |   | (c) The draft plan implements the final nickel TMDL appropriately and effectively. Therefore, EHCMA is filing this comment to indicate support of the draft IP.  | No changes have been made to the implementation plan based on this comment.   |
| 004             | 05/31/01 (letter)<br>05/31/01 (verbal) | Safety-Kleen (Deer Park), Inc.<br><br>(5 page comment letter that is difficult to summarize concisely; all reviewers of this summary should read the full letter also.) | (a) Safety-Kleen appreciates the TNRCCs efforts and leadership in gathering new data regarding nickel concentrations in the HSC, considering input from industry and citizens, and using a cooperative approach to develop the TMDL. Safety-Kleen supported and participated in those efforts.   | The commission appreciates the commentor's participation in and support of the Texas TMDL process. No changes have been made to the implementation plan based on this comment.  |
|                 |  |   | (b) Safety-Kleen has worked aggressively for more than ten years to improve wastewater treatment and reduce its discharge of metals and other pollutants. The Safety-Kleen facility has been recognized by the USEPA as one of the best facilities in the country and using the Best Demonstrated Available Technology (BDAT) for commercial combustion waste disposal. The current BDAT advanced wastewater treatment system can achieve low levels of nickel in effluent, but cannot produce daily concentrations below the 13 µg/L proposed by the implementation plan. | The commission understands and appreciates that Safety-Kleen has made such efforts to reduce pollutant discharges. However, the implementation plan does not propose a specific effluent concentration of 13 µg/L for the Safety-Kleen facility – permit limits for individual facilities will be developed during the permitting process, based on the best information and analyses available at that time. No changes have been made to the implementation plan based on this comment. |

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|                 |            |                          | <p>(c) The current TMDL and draft implementation plan are based on an overly conservative approach to the calculation of allowable loading to Tucker Bayou. Extremely conservative assumptions include:</p> <ul style="list-style-type: none"> <li>C assuming all discharges at maximum permit levels simultaneously;</li> <li>C using the 7 day 2 year low flow for assessing a long term chronic standard;</li> <li>C setting permit limits using total instead of dissolved nickel; and</li> <li>C assuming non-nickel discharges to contain nickel at the chronic standard concentration.</li> </ul> <p>The chances of these conditions occurring simultaneously are virtually zero, yet they may result in Safety-Kleen having to make very expensive changes that will do little or nothing for overall water quality.</p> | <p>The model analyses were very conservative, in part to assure that environmental conditions are adequately protected, and in part because of the constraints that guide technical analyses. However, the TNRCC permitting process allows applicants the opportunity to provide new data, information, or analyses that may support site-specific modifications of TMDL allocations. Several sentences will be added to the draft implementation plan to clarify that permit applicants have the option to provide additional information that may result in adaptive modifications of TMDL implementation.</p> |
|                 |            |                          | <p>(d) Tucker Bayou does not have designated uses, and joins an HSC segment with designated uses of navigation and industrial water supply only. Safety-Kleen believes it may be inappropriate to apply toxic criteria typically designed to protect aquatic life use to a water body without an aquatic life use designation.</p>   | <p>Appendix C of the Texas Surface Water Quality Standards defines Segment 1006 of the HSC as “including tidal portions of tributaries.” Therefore, the tidal portion of Tucker Bayou has the same designated uses and standards as the rest of Segment 1006. Appendix A of the Standards lists specific designated uses for Segments. A footnote to Appendix A stipulates that “Chronic numerical toxic criteria and chronic total toxicity requirements apply to Segments 1006 and 1007.” No changes have been made to the implementation plan based on this comment.</p>                                      |
|                 |            |                          | <p>(e) Safety-Kleen suggests that the TNRCC modify the TMDL language to allow options to Tucker Bayou dischargers faced with more restrictive permit limits, such as further refinement of the TMDL model, phased discharge limits based on flow in the HSC, and less limited or phased-in restrictions.</p>   | <p>The TNRCC permitting process allows applicants the opportunity to provide new data, information, or analyses that may support site-specific modifications of TMDL allocations. Several sentences will be added to the draft implementation plan to clarify that permit applicants have the option to provide additional information that may result in adaptive modifications of TMDL implementation.</p>   |

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|                 |                   |                                     | <p>(f) Safety-Kleen asks that the TNRCC revise the implementation plan to indicate that the TNRCC and Safety-Kleen will work together during the permitting process to establish nickel effluent limits that will protect the environment and be achievable with reasonable control technology. This flexibility would allow TNRCC to consider the assumptions used in the TMDL model and the present impact the industries are having on Tucker Bayou and the HSC, and to consider the ecological impact of leaving the outfall in its current location versus the impact of constructing over a mile of pipeline just to route effluent around one small portion of Tucker Bayou.</p> | <p>The TNRCC permitting process allows applicants the opportunity to provide new data, information, or analyses that may support site-specific modifications of TMDL allocations. Several sentences will be added to the draft implementation plan to clarify that permit applicants have the option to provide additional information that may result in adaptive modifications of TMDL implementation.</p> |
|                 |                   |                                     | <p>(g) Safety-Kleen strongly supports the schedule for implementation, which allows for changes to be made as permits are up for renewal, and allows a compliance period of up to three years for construction and treatment plant changes when permit limits are changed.</p>  | <p>No changes have been made to the implementation plan based on this comment.</p>   |
| 005             | 06/01/01 (letter) | Gulf Coast Waste Disposal Authority | <p>(a) Gulf Coast Waste Disposal Authority (GCA) actively supported development of the dissolved nickel TMDL, and appreciated the opportunity to assist with the development of a scientifically supported ambient water quality database for nickel.</p>   | <p>The commission appreciates the commentor's participation in and support of the Texas TMDL process. No changes have been made to the implementation plan based on this comment.</p>  |
|                 |                   |                                     | <p>(b) GCA has reviewed the draft implementation plan and concludes that the plan appropriately implements the final nickel TMDL effectively.</p>   | <p>No changes have been made to the implementation plan based on this comment.</p>   |

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|                 |                      |  | (c) GCA concurs with the conclusion that the absence of current nickel standard exceedances in the HSC demonstrates that a special monitoring program for nickel is not required.   | No changes have been made to the implementation plan based on this comment.   |
| 006             | 06/04/01<br>(letter) | Rohm and Haas Texas Incorporated<br><br>(5 page comment letter; all reviewers of this summary should read the full letter also.) | (a) Rohm and Haas appreciates the TNRCCs cooperative approach to the dissolved nickel TMDL project.   | The commission appreciates the commentor's participation in and support of the Texas TMDL process. No changes have been made to the implementation plan based on this comment.  |
|                 |                      |  | (b) Because the HSC mainstem is not impaired for nickel even under extremely conservative modeling predictions, Rohm and Haas agrees that the proper course of action is for TNRCC to ensure continued compliance with water quality standards for nickel by following the normal permit approval and renewal process.  | No changes have been made to the implementation plan based on this comment.   |
|                 |                      |  | (c) Requiring load reduction and/or diversion of nickel wastewaters by Tucker Bayou dischargers is not appropriate or warranted. Actual data for Tucker Bayou does not indicate that it is impaired for nickel; the marine chronic criterion is overly restrictive for designated uses of these waters. Model predictions of possible exceedances of the nickel standards are extremely conservative because of internally inconsistent assumptions regarding receiving water body flow and discharge rates. Diverting effluent from Tucker Bayou to the HSC would not result in significant ecological improvement of either water body, and may limit the ecological value of Tucker Bayou by reducing flow through it. | The TMDL model predictions are very conservative. The TNRCC permitting process allows applicants the opportunity to provide new data, information, or analyses that may support site-specific modifications of TMDL allocations. Several sentences will be added to the draft implementation plan to clarify that permit applicants have the option to provide additional information that may result in adaptive modifications of TMDL implementation. |

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|                 |            |                          | <p>(d) TNRCC should provide for additional flexibility in implementing the nickel TMDL in Tucker Bayou. Besides the options described in the draft implementation plan, Rohm and Haas suggests that TNRCC consider, as part of the permitting process, allowing dischargers to reevaluate the assumptions behind the Tucker Bayou portion of the TMDL on a site-specific basis and using site-specific information, under realistic discharge conditions. This could protect water quality in the receiving waters without unduly restricting discharges into a tributary with no designated use and no separate impaired segment designation in the 303(d) list.</p> | <p>The TNRCC permitting process allows applicants the opportunity to provide new data, information, or analyses that may support site-specific modifications of TMDL allocations. Several sentences will be added to the draft implementation plan to clarify that permit applicants have the option to provide additional information that may result in adaptive modifications of TMDL implementation.</p> |
|                 |            |                          | <p>(e) Rohm and Haas has already pursued all avenues to reduce nickel in its discharge. The TNRCC Pollution Prevention program has indicated that it is satisfied with Rohm and Haas' efforts to identify and eliminate any sources of nickel in its process wastewaters. The nickel comes from corrosion of numerous tanks and miles of piping, so there is no process change that Rohm and Haas could implement to further reduce nickel in its effluent.</p>   | <p>The TNRCC permitting process allows applicants the opportunity to provide new data, information, or analyses that may support site-specific modifications of TMDL allocations. Several sentences will be added to the draft implementation plan to clarify that permit applicants have the option to provide additional information that may result in adaptive modifications of TMDL implementation.</p> |

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