

The commission adopts amendments to Subchapter H, §§334.309, 334.310, and 334.322, concerning the Reimbursement Program; the repeal of Subchapter M, §334.560, concerning Reimbursable Cost Guidelines for the Petroleum Storage Tank Reimbursement Program; and new Subchapter M, §334.560, concerning Reimbursable Cost Guidelines for the Petroleum Storage Tank Reimbursement Program. New §334.560 is adopted with changes to the proposed text as published in the May 27, 1997, issue of the *Texas Register* (22 TexReg 4559). Sections 334.309, 334.310, and 334.322 and the repeal of §334.560 are adopted without changes and will not be republished.

#### EXPLANATION OF ADOPTED RULES

The primary purpose of the adopted amendments, repeal, and new section is to update the Reimbursable Cost Guidelines to reflect current market costs for corrective action activities and make minor amendments to clarify and streamline the rules regarding the reimbursement of corrective action activities in the petroleum storage tank program. The adopted amendments, repeal, and new section should assure fair reimbursement of costs for corrective action activities due to leaking storage tanks.

The commission adopts §334.560, concerning Reimbursable Cost Guidelines for the Petroleum Storage Tank Reimbursement Program, with the following changes to the guideline.

The Table of Contents page numbers are readjusted after incorporation of the following changes. Table of Contents, Section 1: Activities: The title of Activity 02 in the Table of Contents is changed from “PHASE-SEPARATED HYDROCARBON (PSH) REMOVAL” to “PHASE-SEPARATED HYDROCARBON (PSH) RECOVERY” to match the title for this activity in the guideline. The title of

Activity 03 in the Table of Contents is changed from “EXCAVATION/SOILS MANAGEMENT” to “EXCAVATION/WASTE MANAGEMENT” to match the title for this activity in the guideline. The title of Activity 08 in the Table of Contents is changed from “CAP PREPARATION” to “CORRECTIVE ACTION PLAN (CAP) PREPARATION” to match the title for this activity in the guideline.

Table of Contents, Section 2: Appendices: The title of APPENDIX A, PART 2 in the Table of Contents is changed from “LABORATORY ANALYSES” to “LABORATORY ANALYSIS COSTS” to match the title for this part in the guideline. The title of APPENDIX A, PART 3 in the Table of Contents is changed from “DRILLING AND WELL INSTALLATION” to “DRILLING, WELL INSTALLATION, AND DIRECT PUSH TECHNOLOGY COSTS” to match the title of this part in the guideline. The title of APPENDIX A, PART 4 in the Table of Contents is changed from “TRAVEL” to “TRAVEL COSTS” to match the title of this part in the guideline. The title of APPENDIX A, PART 5 in the Table of Contents is changed from “EQUIPMENT AND SUPPLIES” to “EQUIPMENT AND SUPPLY COSTS” to match the title of this part in the guideline. The title of APPENDIX A, PART 6 in the Table of Contents is changed from "EXCAVATION/BACKFILLING/RESURFACING” to “EXCAVATION, BACKFILLING, AND RESURFACING COSTS” to match the title of this part in the guideline. The title of APPENDIX A, PART 7 in the Table of Contents is changed from “SOIL AND WASTEWATER MANAGEMENT” to “SOILS AND WASTEWATER MANAGEMENT COSTS” to match the title for this part in the guideline.

Activity 00: Tank Removal: The last sentence in the second paragraph is changed from “This activity is covered in Activity 03: Excavation/Soils Management.” to “This activity is covered in Activity 03: Excavation/Waste Management.” to reflect the appropriate title. Additionally, the citation in Note 2 “§334.308 (b) and (c)14” is changed to “§334.308 (b) and (c)(14)” to add the missing parentheses around “14.”

Activity 01: Initial Abatement: In the third paragraph, last sentence, the last words “Reimbursable Costs Guidelines” are changed to “Reimbursable Cost Guidelines” to remove the “s” from “Costs.”

Activity 02: PSH Recovery: The title is changed from “PSH Recovery” to “Phase-Separated Hydrocarbon (PSH) Recovery” to spell out the acronym “PSH.” In the first paragraph, second line, the reference “See Note” is changed to “See Note below” for greater clarity. In the second paragraph, last line, “Remedial” is changed to “Remediation” to match the Activity 09 title.

Activity 02, Part A: Section 3: In response to a commenter, the first item “Technician I (T1)” is changed from “Measure PSH, Remove PSH - < 100' deep” to “Measure PSH, Remove PSH - < 75' deep”; and on the second item “Technician I (T1),” “Measure PSH, Remove PSH - > 100' deep” is changed to “Measure PSH, Remove PSH - 76 to 110' deep”; and just below this, “Technician I (T1)” and “Measure PSH, Remove PSH - > 110' deep, \$80/well” is added. Just below this area, opposite “Total, Section 3,” in the far right column, “Subtotal X Visits” is deleted; its presence was a typographical error.

Activity 02, Part B: In response to a commenter, the cost for “Small Items” is changed from “\$20.00/Site Day” to “\$20.00/Site/Day,” to correct a typographical error, and for consistency with other entries.

Activity 02, Part D: The rate for “Equipment Truck” is changed from “\$140//Day” to “\$140/Day” to delete the extra slash.

Activity 03: Excavation/Waste Management, Part A, Section 1: The total is changed from “\$790.00” to “\$955.00” to correct an addition error.

Activity 03, in Part C: In response to a commenter, a line item is added for “Subchapter H Discharge or Alternate Disposal Method.” The cost for this item is variable and should be included within the work plan and cost proposal.

Activity 03, in Part D: Analytical Costs: In response to a commenter, the cost for “BTEX-Soil” is changed from \$62.00/unit to \$62.50/unit; the cost for “BTEX (Rush)-Soil” is changed from \$93.00/unit to \$93.75/unit; the cost for “PAH (8100)-Soil” is changed from \$145.00/unit to \$148.00/unit; the cost for “PAH(8270)-Soil” will be changed from \$225.00/unit to \$222.00/unit; the cost for “Total Lead-Soil” is changed from \$25.00/unit to \$31.00/unit; the cost for “BTEX-Water” is changed from \$62.00/unit to \$62.50/unit; the cost for “BTEX (Rush)-Water” is changed from \$93.00/unit to \$93.75/unit; the cost for Total Lead-Water is changed from \$25.00/unit to \$31.00/unit; the cost for “Total Lead (Rush)-Soil” is changed from \$35.00/unit to \$46.50/unit; the cost for “TOX-Soil” is

changed from \$90.00/unit to \$98.00/unit; and the cost for “Total Lead (Rush)-Water” is changed from \$35.00/unit to \$46.50/unit to agree with the costs for the same tests as shown in Part 2: Laboratory Analysis Costs.

Activity 04: Site Assessment, Part A: In Section 1, in response to a commenter, the cost associated with the item “Water Well/Other Facility Search” is increased from \$250.00 to \$300.00. In Section 2, in response to a commenter, the item “RA Update” cost is increased from \$310.00 to \$485.00.

Activity 04, in Part C: In response to a commenter, a line item for “Subchapter H Discharge or Alternate Disposal Method” is added. The cost for this activity is variable and should be included within the work plan and cost proposal.

Activity 04, in Part D: In response to a commenter, the cost for “Total Lead-Soil” is changed from \$25.00/unit to \$31.00/unit; the cost for “PAH(8100)-Soil” is changed from \$145.00/unit to \$148.00/unit; the cost for “PAH(8270)-Soil” is changed from \$225.00/unit to \$222.00/unit; the cost for “VOC-Soil” is changed from \$220.00/unit to \$295.00/unit; and the cost for “VOC-Water” is changed from \$220.00/unit to \$295.00/unit to agree with the costs for the same tests on page 42,  
Part 2: Laboratory Analysis Costs.

Activity 05: Risk Assessment: In the first paragraph, line 5, a reference to “Activity 4” is changed to “Activity 04” to correct a typographical error.

Activity 06: Corrective Action Plan (CAP) Feasibility Testing: In the first paragraph, last line, a reference to “Activity 8” is changed to “Activity 08” and “(CAP)” is added to the title to correct typographical errors.

Activity 06, in Part A, Sections 1, 2, 3 and 4: In response to a commenter, the rate for a “Draftsperson II (D2)” is increased from \$45.00/hour to \$50.00/hour to agree with Part 1: Professional Personnel/Labor Rates.

Activity 06, Part B: The first appearance of line item “Carbon Canister” is deleted because it is a duplicate entry. On the second entry of the line item “Carbon Canister,” in response to a commenter, the cost is raised from \$500.00 to \$750.00 to include installation time, recycling, and/or disposal. Additionally, the cost for “Small Items” is changed from “\$20.00/Site Day” to “\$20.00/Site/Day” in response to a commenter, to correct a typographical error, and for consistency.

Activity 06, in Part C: In response to a commenter, a line item “Subchapter H Discharge or Alternate Disposal Method” is added. The cost for this activity is variable and should be included within the work plan and cost proposal.

Activity 06, in Part D: In response to a commenter, the line item for “BTEX (Water, Air)” at \$62.50/unit is separated into two line items, “BTEX-Water” and “BTEX-Air” each at \$62.50/unit.

Activity 07: Groundwater Testing and Monitoring: The title of this section is changed to “Activity 07: Groundwater Monitoring” to agree with the title listed in the Table of Contents. In the first paragraph, last line, in the reference to “Activity 10: Operation, Monitoring, and Performance,” the word “and” is changed to “&” to agree with the actual activity title.

Activity 07, Part B: The cost for “Small Items” is changed from “\$20.00/Site Day” to “\$20.00/Site/Day” in response to a commenter, to correct a typographical error, and for consistency.

Activity 08: Corrective Action Plan (CAP) Preparation: In response to a commenter, in the “Corrective Action Plan - No Remediation System” section, additional time and cost is allowed for the development of an Operation, Monitoring, & Performance Plan (OM&P) part of the CAP. Line items are added to this section as follows: “Project Manager-OM&P Plan”, 2 hours at \$80.00/hour, “Staff Engineer/Geologist-OM&P Plan”, 4 hours at \$70.00/hour, and “Word Processor-OM&P Plan”, 2 hours at \$35.00/hour. This made the new total for the “Corrective Action Plan-No Remediation” section change from \$640.00 to \$1,150.00.

Also, at the end of Activity 08 in note 2, the semicolon after “i.e.” was changed to a comma to correct the punctuation.

Activity 09: Remediation System Installation: In response to a commenter, the number of oversight hours for a professional/licensed engineer is increased, and the project manager hours are shifted to an associate engineer for greater engineer oversight. Under cost guidelines Activity 08: Corrective Action Plan (CAP) Preparation, the primary professional engineer responsible for development of the “Corrective Action Plan - With Remediation System” was an Associate Engineer. Therefore, the individual with the primary on-site remediation system installation oversight should be an Associate Engineer.

Activity 09, Part A1, Section 1: The item “Project Manager (PM)” at \$80.00/hour is replaced with “Associate Engineer” at \$85.00/hour; the number of hours for this Associate Engineer is also increased from 4 hours to 7 hours.

Activity 09, Part A1, Section 2: The item “Project Manager (PM)” at \$80.00/hour is replaced with “Associate Engineer” at \$85.00; this results in a raise in the Subtotal for Section 2 from \$835.00 to \$840.00.

Activity 09, in Part A2, Section 1: The two “Project Manager (PM),” items at \$80.00/hour are replaced with “Associate Engineer” at \$85.00/hour; and the number of hours for Field Oversight is increased from 4 hours to 9 hours. Also in Part A2, Section 1, on the item “FAR-System Installation,” the total cost is increased from \$2,270.00 to \$2,300.00 to agree with the new total cost for “FAR-Remediation System Installation (Except PSH Recovery System)” in Part 8, Report Generation Costs.

Activity 09, in Part A2, Section 2: The two “Project Manager (PM)” items at \$80.00/hour are replaced with “Associate Engineer” at \$85.00/hour; as a result, the total for Section 2 is increased from \$1,925.00 to \$1,945.00.

Activity 09, in Part A2, Section 3: The item “Project Manager (PM)” at \$80.00/hour is replaced with “Associate Engineer” at \$85.00/hour; the total for Section 3 is then also increased from \$1,235.00 to \$1,245.00.

Activity 09, in Part A2, Section 4: The item “Project Manager (PM)” at \$80.00/hour is replaced with “Associate Engineer” at \$85.00/hour; the total for Section 4 is then also increased from \$835.00 to \$840.00.

Activity 09, in Part A3, Section 1: The two “Project Manager (PM)” items at \$80.00/hour are replaced with “Associate Engineer” at \$85.00/hour. The “Field Oversight” activity hours for the second Associate Engineer item are then increased from 2 hours to 9 hours. The allowed cost for the item “FAR-System Installation” is increased from \$2,270.00 to \$2,300.00 to agree with the new total cost for “FAR-Remediation System Installation (Except PSH Recovery System) in Part 8, Report Generation Costs.

Activity 09, in Part A3, Section 2: The item “Project Manager (PM)” at \$80.00/hour is replaced with “Associate Engineer” at \$85.00/hour; the total for Section 2 is then increased from \$1,235.00 to \$1,245.00.

Activity 09, in Part A3, Section 3: The item “Project Manager (PM)” at \$80.00/hour is replaced with the item “Associate Engineer” at \$85.00/hour; the total for Section 2 is then increased from \$835.00 to \$840.00.

Activity 09, in Part A4, Section 1: The two “Project Manager (PM)” items at \$80.00/hour are replaced in two places with the item “Associate Engineer” at \$85.00/hour. The number of hours for Field Oversight activity for the second Associate Engineer item is then increased from 6 hours to 13 hours. The allowed cost for item “FAR-System Installation” is increased from \$2,270.00 to \$2,300.00 to agree with the new total cost for “FAR-System Installation (Except PSH Recovery System)” in Part 8, Report Generation Costs.

Activity 09, in Part A4, Section 2: The item “Project Manager (PM)” at \$80.00/hour is replaced with Associate Engineer at \$85.00/hour; the total for Section 2 is then increased from \$1,235.00 to \$1,245.00.

Activity 09, in Section 3: The item “Project Manager (PM)” at \$80.00/hour is also replaced with Associate Engineer at \$85.00/hour; the total for Section 2 is then increased from \$835.00 to \$840.00.

Activity 09, in Part C: The cost for the item “Small Items” is changed from “\$20.00/Site Day” to “\$20.00/Site/Day” in response to a commenter, to correct a typographical error, and for consistency.

Activity 09, Part D: In response to a commenter, an item “Subchapter H Discharge or Alternate Disposal Method” is added. The cost for this activity is variable and should be included within the work plan and cost proposal.

Activity 09, Part E: In response to a commenter, the item “BTEX (Water, Air)” at \$62.50/unit will be separated into two lines: “BTEX-Water” and “BTEX-Air” each at \$62.50/unit.

At the end of Activity 09 in Notes, a period was added at the end of note 5 to complete the punctuation.

Activity 10: Operation, Monitoring, & Performance, Part A, Section 1: In response to a commenter, the “OM&P Report” item total cost is changed from \$1,215.00 to \$1,295.00 to correct a typographical error.

Activity 10, Part A, Section 3: In response to a commenter, the item “Staff Engineer (SF)” to perform activity “Field Prep, Data Formatting, each additional 3 system wells” is added with 0.5 hours per site visit.

Activity 10, Part B: In response to a commenter, the cost for item “Carbon Canisters” is changed from \$500.00 to \$750.00 to include installation time, recycling and/or disposal.

Activity 10, Part D: In response to a commenter, an item “Subchapter H Discharge or Alternate Disposal Method” is added to this part. The cost for this activity is variable and should be included within the work plan and cost proposal.

Activity 11: Site Closure, Part A, Section 1: The total for Section 1 is changed from \$630.00 to \$745.00 to correct an addition error.

Activity 11, Part C: On item “Small Items,” the cost is changed from “\$20.00/Site Day” to “\$20.00/Site/Day” in response to a commenter, to correct a typographical error, and for consistency.

Appendix A, Part 1, Professional Personnel Labor Rates, Personnel Qualifications and Task Descriptions: The acronyms are changed following the title “Senior Engineer/Geologist/Hydrogeologist II” from “S2” to “P2” and the acronym following the title “Associate Engineer/Geologist/Hydrogeologist I” from “A1” to “P1” to agree with the acronyms used elsewhere within the cost guidelines. Under the title “Senior Engineer/Geologist/Hydrogeologist II,” in the first line of narrative, the apostrophe is removed from “8 years’ ”to correct a typographical error. Under the title “Project Manager (PM),” in the second line, the apostrophe is removed from “three years’ ” to correct a typographical error. Under the title "Health Scientists," the "s" is removed from the end of the title word "Scientists" for consistency with the other titles.

Appendix A, Part 2: Laboratory Analysis Costs: In the table, method 8021B replaced method 8020 in two places and method 8260B replaced method 8240. At the end of Part 2, an additional note is added to indicate that method 8021B has replaced method 8020, and method 8260B has replaced method 8240.

Part 5, Equipment and Supply Costs: In response to a commenter, in about the middle of the first page, the “Carbon Absorbers” purchase cost is increased from \$500.00 to \$750.00 to include installation time, recycling, and/or disposal.

Part 8, Report Generation Costs: Under Report Form Type “FAR-PSH Recovery System Installation,” the personnel type “D1” is changed to a “D2” to correct a typographical error.

Part 8, Report Generation Costs: Under “FAR-Remediation System Installation (Except PSH Recovery System),” the total for “Senior Engineer (P2)” is increased from \$180.00 to \$190.00 to correct a multiplication error. Also, in response to a commenter, personnel type “PM” at \$80.00/hour is changed to “P1,” referring to an Associate Engineer, at \$85.00/hour. The grand total cost for the FAR-Remediation System Installation (Except PSH Recovery System) is then increased from \$2,270.00 to \$2,300.00.

Part 10, Change Orders: In the first paragraph, the “s” has been taken off of the verb “represents” to correct a grammatical error. In the third, fourth, and fifth paragraphs, in the second line, the “s” has been taken off the verb “causes” to correct grammatical errors.

#### TAKINGS IMPACT ASSESSMENT

The commission has prepared a takings impact assessment for these rules under Texas Government Code, §2007.043. The following is a summary of that assessment. The specific purpose of the adopted amendments, repeal, and new section is to update the Reimbursable Cost Guidelines to reflect current market costs for corrective action activities and to make minor additional changes to clarify and streamline the rule language. The rule amendments, repeal, and new section will substantially advance this specific purpose by allowing the commission to provide reasonable reimbursement of leaking petroleum storage tank corrective action costs. Promulgation and enforcement of these rules will not create a burden on private real property which is the subject of the rule amendments because corrective action would be required on these sites and should be reimbursed at actual cost with or without an update of the Reimbursable Cost Guidelines.

These amendments repeal, and new section are excepted from the Private Real Property Preservation Act under Texas Government Code, §2007.3(b)(4), because the rulemaking is reasonably taken to fulfill an obligation mandated by federal law in 40 Code of Federal Regulations, Part 280, Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (UST).

#### COASTAL MANAGEMENT PROGRAM

The commission has reviewed this rulemaking for consistency with the Coastal Management Program (CMP) goals and policies in accordance with the regulations of the Coastal Coordination Council, and has determined that the rulemaking will not have a direct or significant effect on any Coastal Natural

Resource Areas, nor will the rulemaking have a substantive effect on Commission actions subject to the CMP.

#### PUBLIC HEARING AND COMMENTS

No public hearing was held. The comment period closed June 26, 1997. The commission received four comment letters on the proposal. They were from Applied Earth Sciences, Inc. (AES), Compliance Services Group, Inc. (CSG), Daniel B. Stephens & Associates, Inc. (DBSA), and Exxon Company, U.S.A. (Exxon).

#### GENERAL COMMENTS

CSG commented: "Regional differences should not be regarded as 'extraordinary cases' as they have in the past. How are regional differences going to be accommodated in these new guidelines"?

**The commission agrees with the commenter that some costs do vary across the state. In addition to accounting for regional differences in unit costs, such as drilling costs, the commission did account for regional differences in personnel time by increasing the number of personnel hours allowed for the installation and sampling of boring/monitor wells due to varying depths to groundwater, local geological conditions, and drilling technologies. The commission has made no change in response to these comments.**

CSG commented regarding Section 1: Activities. The commenter asked how a consultant can be expected to prepare accurate work plans and cost proposals in less than two hours. The commenter

indicated the it is unrealistic and potentially negligent for a consultant to spend less than two hours (\$115 worth of effort) on a costly proposal that will be used as the technical and funding basis for a corrective action activity.

**The commission agrees with the commenter that not all work plans and cost proposals can be completed in less than two hours (\$115). For the initial assessment of the site, additional time has been included within the proposed cost guidelines to allowed for preliminary planning, specifically to allow the consultant time to become familiar with the site prior to developing the work plan and cost proposal. Additionally, in the case of the Remedial or CAP, the work plan and cost proposal is for approval to develop the CAP. The CAP itself contains the needed personnel time for the consultant to develop the comprehensive work plan and cost proposal known as the CAP. However, most work plans and cost proposals are for continuing work such as additional assessment activities, risk assessment activities, groundwater monitoring, operation, and maintenance, where the work plan and cost proposal are developed based upon information from the previous activity. The commission has made no change in response to this comment.**

CSG commented regarding the inclusion of additional costs within the proposed cost guideline associated with familiarizing the commission reviewer with the specifics of the site, as well as costs associated with commission modifications to the work plan and cost proposal.

**The commission does not agree with the comments. The commission hires appropriately educated staff, and all new and existing staff are trained regarding commission rules, procedures, and**

**policies. The consultant does not need to familiarize the commission reviewer with the specifics of a site. The consultant, however, should submit complete site reports with sufficient detail to justify conclusions, supported by appropriate data. Further inquiries by commission staff are normally an indication of missing or incomplete information. Additionally, if the commission modifies a work plan, the approved cost proposal is adjusted accordingly to support the work necessary to complete the approved scope of work. The commission has made no change in response to these comments.**

CSG commented about Activity 01: Initial Abatement. The commenter inquired about the reversal of the exception to preapproval for continuous phase-separated product recovery.

**The commission responds by stating that the original intent for the exception was to allow for the removal of phase-separated product only to continue beyond initial abatement activities without the need for preapproval until a corrective action plan was developed and approved for total site remediation. Any total fluids remediation systems (phase-separated product plus groundwater extraction) required preapproval. However, the commission encountered numerous situations where groundwater extraction and treatment systems have been installed and operated without preapproval, based on a justification that the system is a phase-separated product recovery system. Many of these groundwater extraction and treatment systems have been continued well beyond the point at which they remain practically effective, resulting in unnecessary costs for continued ineffective operation. The commission has made no change in response to this comment.**

CSG commented regarding Activity 02: PSH Recovery. The commenter stated that if a deep well (greater than 100 feet) contains several feet of phase-separated hydrocarbon (PSH), additional time should be allowed to account for the additional time needed to bail the well.

**The commission agrees with the commenter that additional time is warranted. The time allowed to do this activity is changed to one hour of technician time per well to measure product thickness and remove any accumulated PSH for wells less than 75 feet, 1 1/2 hours per well for a technician on wells between 76 and 110 feet, and two hours for a technician on wells greater than 110 feet deep.**

CSG commented regarding Activity 02: PSH Recovery, Part C. The commenter asked whether surface discharge costs and laboratory costs could be included in this section.

**The commission does not agree with the commenter. The costs under this section are primarily for manual or passive PSH recovery; therefore, very little groundwater will be recovered for treatment and discharge to surface water. Active PSH recovery systems that may also recover groundwater would be handled under Activity 10: Operation, Monitoring, & Performance. However, based upon this comment, the commission added a line item for these costs in the following activities: Activity 03, Part C; Activity 04, Part C; Activity 06, Part C; Activity 09, Part D; and Activity 10, Part D.**

AES commented regarding Activity 02: PSH Recovery. The commenter recommended that the reimbursable cost of drums be increased from \$40 per drum to \$45 per drum.

**The commission does not agree with the commenter that drum costs should be increased from \$40 to \$45. The commission responds that current drum prices vary widely for both new and recycled drums. The current rate of \$40 per drum is sufficient to purchase both new and recycled drums, and the commission encourages the use of recycled materials. Therefore, no change has been made in response to this comment.**

CSG commented regarding Activity 03: Excavation/Waste Management, Part C. The commenter asked whether the reuse of petroleum contaminated soils was reimbursable.

**The commission responds that the costs associated with the reuse of petroleum contaminated soils can be reimbursed. The costs associated with reuse for backfill and asphalt recycling were included within the proposed cost guideline. The commission made no change in response to this comment.**

AES commented regarding Activity 03: Excavation/Waste Management, Part D. The commenter indicated that some of the laboratory costs did not agree with the laboratory costs outlined on page 42, Appendix A, Part 2: Laboratory Analysis Cost.

**The commission agrees with the commenter, and appropriate changes have been made on laboratory costs throughout the guideline to be sure they agree with those on page 42.**

AES commented regarding Activity 04: Site Assessment, Part A. The commenter suggested that the cost associated with water well and other facility searches be increased from \$250 to \$300 and the cost associated with the Risk Assessment (RA) Update be increased from \$310 to \$350.

**The commission agrees with the commenter. The Water Well/Other Facility Search cost has been increased to \$300. The RA Update cost has been increased to \$485 (rather than the recommended \$350) to agree with Appendix A, Part 8, Report Generation Costs.**

AES commented regarding Activity 04: Site Assessment Part D. The commenter indicated that some of the laboratory costs did not agree with the laboratory costs outlined in Appendix A, Part 2: Laboratory Analysis Cost, page 42.

**The commission agrees with the commenter, and appropriate changes have been made.**

AES commented regarding Activity 06: Corrective Action Plan (CAP) Feasibility Testing, Part A.

The commenter stated that the cost associated with the Draftsperson II should be \$50 per hour, not \$45 per hour.

**The commission agrees with the commenter, and appropriate changes have been made.**

AES commented regarding Activity 06: corrective Action Plan (CAP) Feasibility Testing, Part B. The commenter stated that the small item cost should be \$20/site/day.

**The commission agrees with the commenter, and the appropriate change has been made.**

AES commented regarding Activity 07: groundwater Testing and Monitoring, Part B. The commenter stated that the small item cost should be \$20/site/day.

**The commission agrees with the commenter, and the appropriate change has been made.**

AES commented regarding Activity 07: Groundwater Testing and Monitoring, Part D. The commenter stated that the costs associated with TPH/BTEX and TPH/BTEXw/MTBE are not shown in Appendix A, Part 2: Laboratory Analysis Cost.

**The commission responds that these costs represent sums of the individual test costs found on page 42 in Appendix A, Part 2: Laboratory Analysis Cost. The commission has made no change in response to this comment.**

Exxon commented regarding Activity 08: Corrective Action Plan (CAP) Preparation. The commenter recommended that the proposed cost for the corrective action plan for natural attenuation should be \$3,270 (4 hours for a senior engineer, 16 hours for a project manager, 20 hours for a staff engineer, and 6 hours for a word processor) instead of the amount proposed. The commenter stated that the

analysis required to justify the use of natural attenuation may be greater rather than less than that required for active remediation systems. Alternative electron acceptors, biogenic products, and indicator parameters will need to be measured and the data analyzed. The fate and transport of contaminants from the site will need to be evaluated to demonstrate that the future extent and concentrations of contaminants will be acceptable. Some computer modeling may be needed.

**The commission does not fully agree with the commenter. There will be less data to be evaluated under a corrective action plan for natural attenuation than for an active remediation system. The primary information to be evaluated under the natural attenuation corrective action plan will be analytical monitoring data. In addition to the standard contaminants, the data may include dissolved oxygen, alkalinity, pH, phosphates, nitrates, methane, plus some of the parameters listed by the commenter. Conversely, under an active remediation system corrective action plan, the consultant will be reviewing analytical monitoring data, pilot test data to determine recovery well production rates and well radius of influence, and system treatment capabilities. Once this has been accomplished, the consultant will need time to design the active remediation system. Both corrective action plans will use fate and transport evaluations; however, this information will be developed and evaluated under the Risk Assessment Activity (Plan B). Additionally, target concentration levels will be established for the site under the Risk Assessment Activity. The commission did incorporate additional costs into the corrective action plan for natural attenuation for the purposes of developing the Operation, Monitoring, & Performance Plan, which is an integral part of determining the success of remediation by natural attention.**

DBSA commented regarding Activity 08: Corrective Action Plan (CAP) Preparation. The commenter recommended that the cost associated with the corrective action plan for an engineered remediation be increased by 50% to 100% to provide the level of detail required in the construction documents (plans and specifications) to instruct a third-party contractor how to properly install the system as designed. Alternatively, the installation costs, Activity 09: Remediation System Installation need to be increased by a similar percentage if the CAP costs are to remain as proposed, because more intensive oversight will be required if the construction documents are prepared with little detail.

**The commission does not agree with the commenter that the cost associated with the corrective action plan for an engineered remediation system needs to be increased. As Activity 08, Note 2 indicates, the costs outlined within the proposed cost guideline are the costs for a baseline engineered remediation system. For more complex engineered remedial system designs, which are designed to remediate contaminant plumes of greater areal extent, additional costs can be added with appropriate justification. In agreement with the commenter, the commission has added additional engineering oversight time under Activity 09: Remediation System Installation.**

Exxon commented regarding Activity 09: Remediation System Installation. The commenter suggested that the number of hours listed for the senior engineer for Part A1: PSH Recovery System be increased from 1 hour of project oversight to 8 hours; Part A2: Groundwater Pump-and-Treat System be increased from 3 hours to 12 hours; Part A3: SVE System be increased from 3 hours to 12 hours; and Part A4: Dual Extraction System be increased from 3 hours to 16 hours. The commenter indicated

that the proposed number of hours were inadequate to meet the requirement for professional engineer supervision of the installation of the remediation system.

**The commission agrees with the commenter that additional hours should be added to this activity for more on-site supervision of the installation activities by a professional/licensed engineer. Under the proposed cost guidelines Activity 08: Corrective Action Plan (CAP) Preparation, the primary professional engineer responsible for the development of the CAP is the Associate Engineer.**

**Therefore, under proposed Activity 09: Remediation System Installation, the individual with the primary on-site supervision role will be the Associate Engineer. Those hours originally designated under the Project Manager title were changed to Associate Engineer. Additionally, the total combined engineering (Senior Engineer and Associate Engineer) oversight hours were increased as recommended by the commenter to 8 hours for Part A1: PSH Recovery System; 12 hours for Part A2: Groundwater Pump-and-Treat System; 12 hours for Part A3: SVE System; and 16 hours for Part A4: Dual Extraction System.**

AES commented regarding pages Activity 09: Remediation System Installation. The commenter indicated that drafting time was not included in the proposed cost guidelines for as built drawings.

**The commission responds that the proposed cost guidelines included a lump sum cost for report preparation and submission activity titled “FAR - System Installation” or Field Activity Report - System Installation for each of the four named systems. The breakdown for the “FAR - System Installation” report can be found in Appendix A, Part 8: Report Generation Costs. The cost**

**associated with “FAR - System Installation” includes drafting time. The commission has made no change in response to this comment.**

AES commented regarding Activity 09: Remediation System Installation, Part C. The commenter stated that the small item cost should be \$20/site/day.

**The commission agrees with the commenter, and a change has been made.**

AES commented regarding Activity 09: Remediation System Installation, Part E. The commenter requested that the cost for BTEX for water and BTEX for air be separated onto two separate lines.

**The commission agrees with the commenter, and the change has been made.**

AES commented on Activity 10: Operation, Monitoring & Performance, Part A, Section 3. The commenter suggested that the time spent by the staff engineer for field preparation and data formatting be increased from 0.5 hours per site visit to 2 hours per site visit to review system operation and efficiency.

**The commission does not fully agree with the commenter. The purpose of the proposed staff engineer time was for the scheduling of the site visits and updating the table containing the remediation system monitoring data for the event. Operation and monitoring visits may be as frequent as weekly, bi-weekly, or monthly. Additionally, the proposed cost guideline included 1**

**hour per month for the Project Manager for management, planning, data review, and evaluation of system efficiency. However, additional time has been included within the guideline to account for increased time due to larger and more complex remediation systems. The staff engineer time was increased incrementally; an additional 0.5 hours was allowed for each additional 3 recovery wells.**

AES commented on Activity 10: Operation, Monitoring & Performance, Part B. The commenter suggested that the cost associated with carbon canisters be increase from \$500 each to \$750 each to take into account installation time, recycling, and/or disposal.

**The commission agrees with the commenter, and the change has been made.**

AES commented regarding Activity 10: Operation, Monitoring & Performance, Part C. The commenter stated that the cost associated with PAH is incorrect and the costs associated with TPH/BTEX and TPH/BTEXw/MTBE are not shown in Appendix A, Part 2: Laboratory Analysis Cost.

**The commission does not agree with the commenter on the cost associated with PAH water analysis; the commenter was apparently incorrectly looking at the PAH soil cost. In response to the comment on the costs associated with TPH/BTEX and TPH/BTEXw/MTBE analysis, these costs are the sum of the individual test costs found in Appendix A, Part 2: Laboratory Analysis Cost.**

AES commented regarding Activity 11: Site Closure, Part B. The commenter suggested that the cost associated with plugging up to 25 foot of well should be \$12.50 per foot instead of \$12.00 per foot as proposed.

**The commission does not agree with the commenter. Should any additional site closure costs be required on a specific site, they should be included in Part C as other costs. The commission made no change in response to this comment.**

Exxon commented regarding Activity 11: Site Closure, Part B. The commenter indicated that the proposed costs for well plugging are appropriate. However, Exxon stated that the costs associated with filling, grading, saw-cutting, pavement repair, and simple cleanup are not covered and an additional cost of \$250 per well should be included to cover these costs.

**The commission does not agree with the commenter's suggestion to add a line item of \$250 per well for filling, grading, saw cutting, pavement repair, and simple cleanup. These additional costs will not be required on all sites or have been included in other costs, such as the costs for filling and repaving over plugged wells that are included in the plugging costs. Should any additional site closure costs be required on a specific site, they should be included in Part C as other costs. The commission made no change in response to this comment.**

AES commented regarding Activity 11: Site Closure, Part C. The commenter stated that the small item cost should be \$20/site/day.

**The commission agrees with the commenter, and the change has been made.**

#### STATUTORY AUTHORITY

The amendments are adopted under Texas Water Code, §§26.341 - 26.363, which provides the commission with the authority to establish and administer a program to regulate underground and aboveground storage tanks, to reimburse eligible owners and operators from the Petroleum Storage Tank Remediation Fund, and to establish guidelines for determining the amounts that may be paid from the Petroleum Storage Tank Remediation Fund. The amendments are also adopted under Texas Water Code, §§5.103, 5.105, and 5.235, which authorize the commission to adopt any sections necessary to carry out its powers and duties under the Texas Water Code and other laws of the State of Texas.

#### **SUBCHAPTER H : INTERIM REIMBURSEMENT PROGRAM**

##### **§§334.309, 334.310, 334.322**

##### **§334.309. Reimbursable Costs.**

(a) The commission will utilize the reimbursable cost guidelines, as outlined in §334.560 of this title (relating to Reimbursable Cost Guidelines), to evaluate the reimbursability of claims related to the cleanup of leaking petroleum storage tank sites.

(b) (No change.)

(c) For those activities that require preapproval, pursuant to §334.310(f) of this title (relating to Requirements for Eligibility), the commission will consider the pre-approved cost or the actual cost, whichever is lower, as the reimbursable cost.

**§334.310. Requirements for Eligibility.**

(a) For a person to be an eligible owner or operator under this subchapter, each of the following requirements must be met.

(1) The person must meet the other requirements of this chapter and must be:

(A) - (E) (No change.)

(F) an adjacent landowner who can clearly prove that the land has been contaminated by a release of petroleum products from a tank described in subparagraph (A) of this paragraph which is not located on said land, and who performed corrective action in response to a release of petroleum products from such tank, and either:

(i) performed emergency abatement actions by completing all the following:

(I) - (II) (No change.)

(III) taking actions necessary to protect against imminent danger to human health and safety by mitigating fire, explosion, and vapor hazards, by removing phase-separated product from structures, basements, sumps, etc., or performing other actions as deemed necessary by the executive director. Restoration of site to preexisting conditions, cost of relocating utility structures, site assessment, and remediation are not considered part of emergency abatement activities. Any expenses incurred after 72 hours from commencement of the action must be approved by the executive director in writing; and

(IV) (No change.)

(ii) (No change.)

(2) - (5) (No change.)

(b) - (e) (No change.)

(f) Unless otherwise approved by the executive director, all corrective action activities, including activities proposed in corrective action plans, must be approved in writing by the executive director prior to implementation. For reimbursement of emergency, initial abatement measures and phase-separated product recovery as required by §334.77 of this title (relating to Initial Abatement

Measures and Site Check), approval by the executive director is not required prior to implementation, unless the emergency action extends beyond 72 hours, then written approval will be required for all activities.

**§334.322. Subchapter H Definitions.**

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

**Emergency abatement** - Taking actions necessary to protect against imminent danger to human health and safety by mitigating fire, explosion, and vapor hazards, by removing phase-separated product from structures, basements, sumps, etc., or performing other actions as deemed necessary by the executive director. Restoration of site to preexisting conditions, cost of relocating utility structures, site assessment, and remediation are not considered part of emergency abatement activities.

**Initial abatement measures** - The mitigation of all existing or potential fire, explosion, or vapor hazards, including the removal of phase-separated product, to provide adequate protection of human health, safety, and the environment in emergency situations or other situations where emergency actions must be implemented to prevent further impacts to the environment. Restoration of site to preexisting conditions, cost of relocating utility structures, site assessment, and remediation are not considered part of initial abatement measures.

**Phase-separated product** - See Free-product as defined in §334.2 of this title (relating to Definitions).

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's authority to adopt.

Issued in Austin, Texas, on September 17, 1997.

**SUBCHAPTER M : REIMBURSABLE COST GUIDELINES FOR THE  
PETROLEUM STORAGE TANK REIMBURSEMENT PROGRAM**

**§334.560**

The repeal is adopted under Texas Water Code, §§26.341 - 26.363, which provides the commission with the authority to establish and administer a program to regulate underground and aboveground storage tanks, to reimburse eligible owners and operators from the Petroleum Storage Tank Remediation Fund, and to establish guidelines for determining the amounts that may be paid from the Petroleum Storage Tank Remediation Fund. The repeal is also adopted under Texas Water Code, §§5.103, 5.105, and 5.235, which authorize the commission to adopt any sections necessary to carry out its powers and duties under the Texas Water Code and other laws of the State of Texas.

**§334.560. Reimbursable Cost Guidelines.**

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's authority to adopt.

Issued in Austin, Texas, on September 17, 1997.

**SUBCHAPTER M : REIMBURSABLE COST GUIDELINES FOR THE  
PETROLEUM STORAGE TANK REIMBURSEMENT PROGRAM**

The new section is adopted under Texas Water Code, §§26.341 - 26.363, which provides the commission with the authority to establish and administer a program to regulate underground and aboveground storage tanks, to reimburse eligible owners and operators from the Petroleum Storage Tank Remediation Fund, and to establish guidelines for determining the amounts that may be paid from the Petroleum Storage Tank Remediation Fund. The new section is also adopted under Texas Water Code, §§5.103, 5.105, and 5.235, which authorize the commission to adopt any sections necessary to carry out its powers and duties under the Texas Water Code and other laws of the State of Texas.

**§334.560. Reimbursable Cost Guidelines.**

The commission hereby adopts the following Reimbursable Cost Guidelines for the Petroleum Storage Tank Reimbursement Program which are in effect as of October 22, 1997. Figure: 30 TAC §334.560

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on October 1, 1997.