

STATUTORY AUTHORITY: KRS 224.10-100(28), 224.60-120(6), 224.60-130(1)(a) through (e)

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.60-130(1)(a) through (e) requires the establishment of the procedures to administer the Petroleum Storage Tank Environmental Assurance Fund (PSTEF). KRS 224.10-100(28) authorizes the cabinet to promulgate administrative regulations not inconsistent with the provisions of law administered by the cabinet. KRS 224.60-120(6) requires the cabinet to establish administrative regulations to implement the requirements for financial responsibility of petroleum storage tank owners or operators. This administrative regulation establishes procedures to administer the PSTEF, payment for third-party claims, financial audits, eligible company and partnership certification, laboratory certification, and facility ranking.

Section 1. Applicability.

(1) This administrative regulation establishes the eligibility requirements and procedures for a petroleum storage tank owner or operator to make application, become an eligible applicant, and receive reimbursement from the cabinet for the cost of corrective action due to a release from a petroleum storage tank.

(2) Federally owned facilities shall not be eligible for reimbursement from the PSTEF in accordance with KRS 224.60-115(16).

(3) Eligible reimbursement for actions directed by the Underground Storage Tank (UST) Branch prior to October 6, 2011 shall be made in accordance with the reimbursement administrative regulations in effect at the time work was performed.

Section 2. Application for Assistance for Reimbursement.

(1) A petroleum storage tank owner or operator seeking reimbursement from the Financial Responsibility Account (FRA) or the Petroleum Storage Tank Account (PSTA), shall:

(a) In accordance with 401 KAR 42:020, submit to the UST Branch a complete and accurate UST Facility Registration, DWM 4225, incorporated by reference in 401 KAR 42:020;

(b) Complete and submit a UST Application for Assistance for PSTEF, DWM 4282, including all required attachments;

(c) Enter into and submit, a contract in accordance with Section 3 of this administrative regulation;

(d) 1. Document that a release requiring corrective action from a petroleum storage tank has occurred; or

2. Receive a written directive from the UST Branch, in accordance with 401 KAR 42:060; and

(e) Subrogate, to the cabinet, the rights to recover costs of corrective action, for which the cabinet has compensated the person seeking reimbursement, from the person responsible or liable for the release in accordance with KRS 224.60-140(14)(c).

(2) If an application for assistance is found deficient by the UST Branch, a written corre-
spondence, stating the deficiencies, shall be issued to the applicant.

(a) Failure by the applicant to provide the requested information and documentation within thirty (30) days of receipt of the request shall cause the application for assistance to be denied.

(b) Denial of the application for assistance shall not prevent the petroleum storage tank owner or operator from reapplying if the requested documentation becomes available.

(3) If the applicant complies with the requirements of subsection (1) of this section, the UST Branch shall determine the eligibility of the applicant to receive reimbursement from either the FRA or PSTA, in accordance with Section 4 of this administrative regulation, and shall issue a written approval of the application for assistance.

(4) Reimbursement in accordance with an approved application for assistance shall be restricted to:

(a) Actions directed in writing by the UST Branch; and

(b) Initial and immediate response actions taken at a facility, prior to a written directive from the UST Branch, and not declared an environmental emergency by the cabinet, and subject to the reimbursement provisions established in Section 3.13 of the UST PSTEAF Reimbursement Rates.

(5) If the petroleum storage tank owner or operator seeking reimbursement from the PSTEAF changes and the new petroleum storage tank owner or operator assumes responsibility for the compliance with 401 KAR Chapter 42, the new petroleum storage tank owner or operator shall submit an amended:

(a) UST Facility Registration, DWM 4225, incorporated by reference in 401 KAR 42:020, in accordance with 401 KAR 42:020, Section 2(4) indicating a change in petroleum storage tank owner or operator; and

(b) UST Application for Assistance for PSTEAF, DWM 4282, including all required attachments, within thirty (30) days of the transfer of the petroleum storage tank.

(6) To maintain eligibility for participation in and reimbursement from the PSTEAF, the petroleum storage tank owner or operator shall maintain compliance with the requirements of this administrative regulation.

Section 3. Contracts.

(1) A petroleum storage tank owner or operator shall obtain a contract from an eligible company or partnership to be eligible for reimbursement from the cabinet for the performance of corrective action or site check activities at a facility.

(2) In accordance with KRS 224.60-130(1)(a), an eligible company or partnership shall not require payment from an applicant in an amount greater than the reimbursable amount.

(3) The contract shall be executed prior to commencing corrective action or site check activities.

(4) If a contract is revised, a copy of the revised contract shall be submitted to the UST Branch within thirty (30) days of the revised contract execution.

(5) If a contract is terminated and a new contract is executed:

(a) The petroleum storage tank owner or operator approved for PSTEAF reimbursement shall submit a notarized UST Affidavit of Termination of PSTEAF Contract, DWM 4280, to the UST Branch; and

(b) A copy of the newly executed contract shall be submitted to the UST Branch within thirty (30) days of contract execution, and prior to the commencing of corrective action or site check activities by the new eligible company or partnership.

Section 4. Account Placement.

(1) When participating in the FRA, a petroleum storage tank owner or operator shall be eli-
gible to receive reimbursement for corrective action costs, site check activities directed in writing by the UST Branch after September 13, 2006, that do not confirm contamination above applicable screening levels, and third-party claims in accordance with Section 12 of this administrative regulation, incurred on or after April 9, 1990, if the petroleum storage tank owner or operator has:

(a) Registered the petroleum storage tanks with the UST Branch, in accordance with 401 KAR 42:020, prior to the release requiring corrective action or site check activities;

(b) Maintained UST system release detection as required by 401 KAR 42:020. A petroleum storage tank permanently or temporarily closed in accordance with 401 KAR 42:060, shall have been in compliance with UST system release detection requirements prior to the permanent or temporary closure of the system;

(c) Maintained corrosion protection for the petroleum storage tank system in accordance with 401 KAR 42:020;

(d) Maintained overfill and spill prevention for the petroleum storage tank system in accordance with 401 KAR 42:020 for those tanks in use after December 22, 1998;

(e) Reported the release to the cabinet in accordance with KRS 224.1-400(11) and 401 KAR 42:060;

(f) Performed initial abatement procedures as required by the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060; and

(g) Submitted to the cabinet a UST Notice of Intent to Permanently Close Underground Storage Tank System, DWM 4266, incorporated by reference in 401 KAR 42:060, if applicable.

(2) A petroleum storage tank owner or operator that is not eligible for participation in the FRA, shall be eligible for reimbursement from the (PSTA) for corrective action costs, incurred on or after April 9, 1990, or site check activities directed in writing by the UST Branch after September 13, 2006, that do not confirm contamination above applicable screening levels, if the petroleum storage tank owner or operator has registered the petroleum storage tanks with the UST Branch in accordance with 401 KAR 42:020.

Section 5. Entry Level.

(1) For facilities with releases confirmed after September 13, 2006, a petroleum storage tank owner’s or operator’s entry level shall be equal to the financial responsibility requirement, as established in KRS 224.60-120(1), and shall be deducted from the eligible reimbursement except as established in subsection (3) of this section.

(2) An entry level shall be assessed upon confirmation of a release, constituting an occurrence, that requires corrective action for which the applicant is seeking reimbursement through the FRA and PSTA in accordance with subsection (1) of this section, regardless of a petroleum storage tank owner’s participation in the Small Owner Tank Removal Account (SOTRA) in accordance with 401 KAR 42:330.

(3) The entry level shall not be deducted from the eligible reimbursement if the petroleum storage tank owner or operator performs:

(a) A site check directed by the UST Branch in accordance with 401 KAR 42:060, that does not confirm contamination requiring further action in accordance with 401 KAR Chapter 42;

(b) An initial and immediate response action in accordance with Section 2.2 of the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060;

(c) Optional soil removal outside the excavation zone during permanent closure in accordance with Section 4.16 of the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060;

(d) Transportation and disposal of excavated material contaminated above applicable screening levels within the excavation zone during permanent closure in accordance with 401
(e) Transportation and disposal of pit water contaminated above applicable screening levels within the excavation zone during permanent closure in accordance with the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060.

(4) Upon request by the petroleum storage tank owner or operator, the UST Branch shall reimburse, upon final payment, twenty-five (25) percent of the entry level if the petroleum storage tank owner or operator has:

(a) Completed corrective action at the facility within:
   1. 180 days from the discovery of the release, for soil contamination only; or
   2. Twenty-four (24) months from the discovery of the release, for groundwater contamination only or both soil and groundwater contamination; and
(b) Been issued a no further action letter without additional measures being required for an occurrence associated with the submittal of an application for assistance.

(5) The applicable entry level shall be equal to the financial responsibility requirement as established in KRS 224.60-120(1), based on the number of tanks owned or operated by the petroleum storage tank owner or operator at the time of the occurrence associated with the submittal of an application for assistance.


(1) A newly discovered UST system encountered at a facility during the performance of corrective action due to a release from a registered petroleum storage tank shall not affect a petroleum storage tank owner’s or operator’s account placement eligibility.

(2) The number of newly discovered tanks shall not increase the entry level of the petroleum storage tank owner or operator.

Section 7. Establishing the Reimbursable Amount for a Written Directive.

(1) The reimbursable amount established for the completion of a written directive issued by the UST Branch shall be based on:

(a) The formulated task rates established in Section 3.0 of the UST PSTEAF Reimbursement Rates; and

(b) For a specific task that does not have a formulated task rate in the UST PSTEAF Reimbursement Rates, a cost estimate shall be submitted by the owner or operator.

(2) The cost estimate shall include:

(a) A cost itemization to complete the individual task using those personnel and equipment rates established in Section 5.0 of the UST PSTEAF Reimbursement Rates applicable to individual components of the task;

(b) Three (3) bids from suppliers or manufacturers of corrective action equipment for individual equipment purchase or rental, exceeding $3,000, if applicable, containing a description of the equipment provided by the supplier or manufacturer; and

(c) An estimate for materials to be purchased, if applicable.

(3) The UST Branch shall establish the reimbursable amount in a written directive based on the formulated task rates established in the UST PSTEAF Reimbursement Rates and applicable, approved, cost estimates.

(4) The cabinet shall attach to the written directive:

(a) An itemization of the reimbursable amount; and

(b) A UST Claim Request for Directed Actions, DWM 4286.

(5) The issuance of a written directive by the UST Branch shall, subject to the provisions of Section 8 of this administrative regulation, constitute an obligation and guarantee of payment of the reimbursable amount identified within a written directive, in accordance with KRS...
224.60-140(5).

(6) Upon compliance with Section 8 of this administrative regulation, the reimbursable amount established by the UST Branch in a written directive shall, as applicable and in accordance with the UST PSTEAF Reimbursement Rates, be adjusted as established in this subsection.

(a) The reimbursable amount for over-excavation identified in the written directive issued by the UST Branch is an estimate of the tonnage to be removed and shall be based on the volume and density of material in the proposed excavation area. The UST Branch shall convert cubic yardage to tons using a density of one and one-half (1.5) tons per cubic yard. The reimbursable amount shall be adjusted based on:

1. a. The soil tonnage verified through the submittal of weigh tickets; or

   b. If soil is disposed of at a permitted disposal facility incapable of providing weigh tickets, a calculation of the tonnage associated with the actual area and depth of over-excavation, not to exceed the tonnage estimate identified in the written directive from the UST Branch; and

2. The actual quantity of water encountered during an over-excavation that is removed, transported and disposed of, contingent upon analytical confirmation that contaminant levels of the water exceed the applicable groundwater screening levels, and as documented by disposal manifests and limited to one (1) pit volume;

(b) The reimbursable amount for a Mobile Dual-Phase Extraction Event, identified in a written directive issued by the UST Branch, shall be adjusted to include the amount of water disposed as documented by disposal manifests, or the amount of water verified by the eligible company or partnership as being treated on site;

(c) The reimbursable amount for operation and maintenance of an approved remediation system shall be adjusted to include the actual cost of utilities as documented by invoices submitted;

(d) If the UST Branch has not received and approved the UST Application for Assistance for PSTEAF, DWM 4282, prior to the issuance of the written directive, the reimbursable amount identified in the written directive issued shall not include the applicable formulated task rates for mobilization, per diem, and field equipment cost. The UST Branch shall add the applicable formulated task rates for mobilization, per diem, and field equipment to the reimbursable amount of the submitted claim, in accordance with the UST PSTEAF Reimbursement Rates, once an approved UST Application for Assistance for PSTEAF, DWM 4282, is submitted;

(e) If the UST Branch has not received a signed contract between the eligible applicant and the eligible company or partnership prior to the issuance of the written directive, the reimbursable amount identified in the written directive issued shall not include the applicable formulated task rates for mobilization, per diem, and field equipment cost. The UST Branch shall add the applicable formulated task rates for mobilization, per diem, and field equipment to the reimbursable amount of the submitted claim, in accordance with the UST PSTEAF Reimbursement Rates, once the requirements of Section 3 of this administrative regulation are met;

(f) If a written directive issued by the UST Branch cannot be complied with to the extent necessary to achieve a technically complete determination by the UST Branch, in accordance with 401 KAR 42:060, for reasons beyond the control of the applicant, or eligible company or partnership, the previously approved reimbursable amount established in the written directive shall, unless addressed in the written directive, be adjusted by the UST Branch, with reference to the UST PSTEAF Reimbursement Rates and the applicable, approved cost estimate, to deduct the cost of actions not completed; or

(g) If the UST Branch rescinds an issued written directive prior to the completion of the entire scope of work identified in the written directive, the previously approved reimbursement amount shall be adjusted to reflect the cost of actions completed, with reference to the UST
PSTEAF Reimbursement Rates and the approved cost estimate, if applicable.

(7) Reimbursement for an individual corrective action equipment purchase or rental shall not include markup and shall be limited to:
   
   (a) The original purchase price provided by the supplier or manufacturer, including applicable sales tax, if purchased; or
   
   (b) Rental costs not exceeding the purchase price provided by the supplier or manufacturer, if rented.

(8) The UST Branch shall have final authority to determine all reimbursable actions including site characterization and corrective action technologies in accordance with 401 KAR 42:060.

Section 8. Reimbursement for a Written Directive.

(1) Reimbursement for a written directive shall be made after the following actions are completed:
   
   (a) The submittal and approval of a UST Application for Assistance for PSTEAF, DWM 4282, in accordance with Section 2 of this administrative regulation;
   
   (b) The UST Claim Request for Directed Actions, DWM 4286, which includes payment verification affidavit as required by KRS 224.60-140(18), provided with the written directive has been completed, signed, and submitted to the UST Branch;
   
   (c) The submittal of a UST Payment Waiver, DWM 4289, executed by each affected vendor or subcontractor, as applicable, in accordance with KRS 224.60-140(18);
   
   (d) The submittal of weigh tickets and invoices documenting the actual cost of items that do not have a formulated task rate established in the UST PSTEAF Reimbursement Rates or other required backup documentation as indicated in the written directive;
   
   (e) The technical report submitted in response to the written directive once determined by the UST Branch to be technically complete in accordance with the written directive and 401 KAR 42:060; and
   
   (f) Payment has been received for all applicable annual fees in accordance with KRS 224.60-150 and 401 KAR 42:020, Section 2.

(2) Reimbursement shall be contingent upon the contracted eligible company or partnership complying with the requirements established in accordance with Section 19 of this administrative regulation.

(3) Reimbursement shall be contingent upon a certified laboratory performing the required analysis in accordance with Section 20 of this administrative regulation.

(4) If the contract with the eligible company or partnership designated on a written directive is terminated prior to the commencement of reimbursable activities in response to the written directive, the obligation and guarantee of payment of the reimbursable amount shall be void.

(5) The information completed by the UST Branch on the UST Claim Request for Directed Actions, DWM 4286, attached to the written directive, shall not be modified by the applicant or the eligible company or partnership designated on the written directive.

(6) If the applicant fails to correct a claim-related deficiency or to supply additional claim information, within thirty (30) days of written notice from the UST Branch, that portion of the claim shall be denied.

(7) The UST Branch shall issue a determination in accordance with KRS 224.60-140(7) as to whether or not the costs submitted in the claim are eligible for reimbursement.

(8) All claims shall be submitted within two (2) years after issuance of a no further action letter by the UST Branch, in accordance with KRS 224.60-130(1)(n).

(9) If a request to re-evaluate the reimbursable amount, established in accordance with Section 7 of this administrative regulation, is submitted in accordance with Section 14 of this administrative regulation, and a not-to-exceed amount is warranted, final reimbursement shall be
made on a time and material basis, which shall require the following supporting documentation:

(a) An itemization of the eligible company or partnership invoice with supporting documentation;
(b) Itemized subcontractor and vendor invoices with supporting documentation; and
(c) Time sheets to support all personnel time billed for the completion of the scope of work identified in the written directive.

Section 9. Reimbursement for Actions Not Directed in Writing.

(1) Reimbursement shall be made for the following actions in accordance with the applicable formulated task rates established in the UST PSTEAF Reimbursement Rates:

(a) Optional Soil Removal Outside the Excavation Zone at permanent closure, in accordance with Section 4.16 of the UST Corrective Action Manual incorporated by reference in 401 KAR 42:060;
(b) Transportation and disposal, treatment, or recycling, at a permitted facility, of material or water contaminated above applicable screening levels, removed from within the excavation zone, at permanent closure, in accordance with the UST Corrective Action Manual incorporated by reference in 401 KAR 42:060;
(c) Initial and immediate response actions, identified in Section 3.13 of the UST PSTEAF Reimbursement Rates, taken at a facility in accordance with Section 2.0 of the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060, prior to a written directive from the UST Branch or prior to the date of a declared environmental emergency by the cabinet;
(d) Transportation and disposal of drums containing purged water or soil cuttings associated with actions directed in accordance with 401 KAR 42:060;
(e) Encroachment permit renewals necessary to complete directed actions; and
(f) Unscheduled maintenance of a remediation system installed in accordance with approved corrective action activities. Pre-approval shall be required for one (1) unscheduled maintenance event that will exceed $3,000 for material and equipment.

(2) Reimbursement shall be made after the following actions are completed:

(a) The approval of a UST Application for Assistance for PSTEAF, DWM 4282, in accordance with Section 2 of this administrative regulation;
(b) The UST Claim Request for Actions Not Directed, DWM 4285, which includes payment verification affidavit as required by KRS 224.60-140(18), has been completed, signed, and submitted to the UST Branch;
(c) The submittal of a UST Payment Waiver, DWM 4289, executed by each affected vendor or subcontractor, as applicable, in accordance with KRS 224.60-140(18);
(d) The submittal of required backup documentation as identified on the instruction sheet associated with each worksheet;
(e) Payment has been received for all applicable annual fees in accordance with KRS 224.60-150 and 401 KAR 42:020 Section 2;
(f) The UST Optional Soil Removal at Permanent Closure Reimbursement Worksheet, DWM 4288, has been completed and submitted to the UST Branch for optional soil removal outside of the excavation zone at permanent closure in accordance with 401 KAR 42:060 for actions listed in subsection (1)(a) of this section, if applicable;
(g) The UST Miscellaneous Tasks Reimbursement Worksheet, DWM 4287, has been completed and submitted to the UST Branch for actions listed in subsection (1)(b), (c), (d), (e), or (f) of this section, if applicable; and
(h) The technical report submitted in accordance to subsections (1)(a), (b), or (c) of this section has been deemed technically complete, if applicable, in accordance with 401 KAR Chapter
(3) Reimbursement shall be contingent upon the contracted eligible company or partnership complying with the requirements established in accordance with Section 19 of this administrative regulation.

(4) Reimbursement shall be contingent upon a certified laboratory performing the required analysis in accordance with Section 20 of this administrative regulation.

(5) The UST Branch may require additional information and documentation, if necessary to determine that a request for reimbursement is reasonable and necessary.

(6) If the applicant fails to correct a claim-related deficiency, or to supply additional claim information, within thirty (30) days of written notice from the UST Branch, that portion of the claim shall be denied.

(7) The UST Branch shall issue a determination, in accordance with KRS 224.60-140(7), as to the eligibility for reimbursement of the costs submitted in the claim.

(8) All claims shall be submitted within two (2) years after issuance of a no further action letter by the UST Branch in accordance with KRS 224.60-130(1)(n).

Section 10. Facility Restoration.

(1) The UST Branch shall issue a written directive in accordance with Section 7 of this administrative regulation, once the applicant provides the information required by Section 5.9.2 in the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060.

(2) If the UST Branch does not issue a written directive in accordance with subsection (1) of this section, the applicant may submit an obligation request to the cabinet, with the information required by Section 5.9.2 of the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060, for the completion of facility restoration actions.

(3) Reimbursement for facility restoration activities shall be made in accordance with Section 8 of this administrative regulation.

Section 11. Payment for Actions Directed by the Environmental Response Team. Payment for actions directed and documented by the Environmental Response Team during a declared environmental emergency shall not be governed by this administrative regulation and shall be made in accordance with KRS Chapter 224.

Section 12. Third-Party Claims.

(1) An eligible third-party claim shall be limited to bodily injury and property damage, asserted against an owner or operator as a result of sudden or non-sudden accidental releases into the environment from a petroleum storage tank at a facility eligible for participation in the FRA.

(2) A petroleum storage tank owner or operator shall be eligible to apply for reimbursement or payment for a third-party claim if:
   (a) The cabinet has approved an application for assistance; and
   (b) The owner or operator has maintained compliance with the eligibility requirements for participation in the FRA in effect at the time the application for assistance was approved.

(3) If a petroleum storage tank owner or operator receives a written notice from the cabinet indicating noncompliance with the eligibility of the FRA in accordance with Section 4 of this administrative regulation, the petroleum storage tank owner or operator shall only be eligible for reimbursement of the costs of third-party claims brought against the petroleum storage tank owner or operator within sixty (60) days from the date of the written notice.

(4) To assert a claim for payment or reimbursement of a third-party claim, an eligible owner or operator shall:
   (a) Submit a new UST Application for Assistance for PSTEAF, DWM 4282; and
(b) Notify the cabinet of the assertion of the third-party claim within twenty-one (21) days of service of process of an action against the owner or operator by the third party, or the receipt of an assertion of a claim in writing by a third party.

(5) A third-party claim shall be paid on the basis of:
(a) A final and enforceable judgment; or
(b) A written agreement between a third party and the owner or operator, upon review and concurrence by the cabinet.

(6)(a) A settlement of a third-party claim shall not be made by an owner or operator without the prior approval of the cabinet.

(b) The cabinet shall not pay a third-party judgment, or reimburse an owner or operator for payment of the judgment, in an amount exceeding a settlement offer rejected by the owner or operator if the settlement offer was:
1. Not submitted to the cabinet for consideration; or
2. Previously approved by the cabinet.

(7) Claim payment shall be limited to actual, documented, bodily injury and property damage caused by the release of petroleum.

(a) A claim for bodily injury and property damage shall be paid to the extent that the damages are not addressed by the performance of corrective action.

(b) 1. The aggregate amount of payment of all third-party claims shall not exceed $1,000,000 per occurrence.
2. Claim requests shall be submitted on the UST Third-Party Claim, DWM 4292.

(c) The cabinet shall acquire by subrogation the right of the third-party to recover, from the person responsible or liable for the release, the amount of damages paid to the third-party.

(d) Reimbursement for third-party claims shall be made in accordance with Section 21 of this administrative regulation.

(e) Payment of a third-party claim shall be made after approval by the cabinet.

Section 13. Eligible and Ineligible Costs.

(1) Eligible costs for regulated petroleum storage tanks containing motor fuel shall include:

(a) Initial and immediate response actions taken outside of the excavation zone, in accordance with Section 2.0 of the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060, prior to a written directive from the UST Branch or prior to the date of a declared emergency by the cabinet;

(b) Site checks at a facility, in accordance with a written directive issued after September 13, 2006 by the UST Branch;

(c) Tank and line tightness testing as requested in writing by the UST Branch in conjunction with site check, site investigation, or corrective action activities for a facility;

(d) Performance of "corrective action" as defined by KRS 224.60-115(4), due to a release of motor fuel from a regulated petroleum storage tank system, upon written direction by the UST Branch;

(e) Transportation, disposal, or treatment at a permitted facility, and replacement of excavated material, contaminated above applicable screening levels:
    1. Within the excavation zone, excluding the tank volume, in accordance with Section 4.0 of the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060; or
    2. Outside the excavation zone, in accordance with Section 4.16 of the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060;

(f) Transportation and disposal, treatment, or recycling, at a permitted facility, of free product or water, contaminated above screening levels encountered:
    1. Within the excavation zone, during activities in accordance with Section 4.0 of the UST
Corrective Action Manual, incorporated by reference in 401 KAR 42:060; and

2. During activities in accordance with Section 4.16 of the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060;

(g) A fifteen (15) percent total markup above the cost of materials purchased associated with a task for which there is not a formulated task rate established in the UST PSTEAF Reimbursement Rates;

(h) An eligible company or partnership that employs an unaffiliated subcontractor or other vendor shall receive a fifteen (15) percent markup for costs that do not have a formulated task rate established in the UST PSTEAF Reimbursement Rates;

(i) Surface material to replace removed or damaged areas directly associated with corrective action activities, upon written direction by the UST Branch; and

(j) Other costs, associated with corrective action activities, as required in a written directive issued by the UST Branch for the facility.

(2) Ineligible costs for regulated petroleum storage tanks containing motor fuel shall include:

(a) Except as established in subsection (1) of this section, costs incurred prior to written approval by the UST Branch;

(b) Costs incurred for the purpose of complying with the requirements of 401 KAR 42:020;

(c) Replacement, repair, maintenance, or retrofitting of tanks or piping;

(d) A cost associated with a release from a storage tank exempt from requirements of 401 KAR Chapter 42 as established in KRS 224.60;

(e) A cost or cost recovery for governmental emergency services;

(f) A cost of a party employed to act as a surrogate or stand-in for the owner or operator of the facility;

(g) Preparation of documentation, cost estimates, written agreements, contracts, or client invoices that will be submitted to the UST Branch for reimbursement purposes;

(h) Except as established in 401 KAR 42:330, costs related to the removal, or actions incidental to the removal of a tank system;

(i) Road mileage beyond 1,000 miles round trip;

(j) Reimbursement for work or a portion of work, performed at a facility if the results of laboratory analysis do not confirm the need for corrective action, or for actions to achieve contaminant concentrations less than those directed by the cabinet, except for investigatory or corrective actions directed from the UST Branch in writing;

(k) Work performed that is not in compliance with safety codes;

(l) Free product recovery from monitoring wells or borings during corrective action activities, unless directed in writing by the UST Branch;

(m) Costs incurred to replace a monitoring well destroyed, damaged, or that cannot be accessed or located due to actions within the control of the applicant;

(n) Costs incurred for the purpose of compliance with permit conditions for permitted soil treatment facilities;

(o) Costs incurred for the removal, transportation and disposal, recycling, or treatment of free product from within the excavation zone of a UST system, that is not permanently closed, for which contamination above applicable screening levels outside the excavation zone has not been confirmed;

(p) Costs relating to compliance with a local program having corrective action standards more stringent than those directed by the cabinet;

(q) A laboratory "rush" fee, unless directed by the UST Branch;

(r) Costs of resampling and laboratory tests performed as a result of an operational or methodology mistake by the analytical laboratory, or costs for an analytical laboratory to become certified or accredited in accordance with the requirements of KRS 224.60-130(1)(a) and
Section 20 of this administrative regulation;

(s) Laboratory costs incurred after the laboratory certification eligibility expiration date;

(t) Costs incurred for additional assessment or corrective action plan modification necessary as a result of delayed implementation of the corrective action plan, beyond the deadline established in writing by the UST Branch;

(u) Costs incurred as a result of delayed implementation of a written directive, beyond twelve (12) months from the issuance date of the deadline established in writing by the UST Branch;

(v) The portion of a lease or rental cost for capital equipment that exceeds the purchase price of the equipment;

(w) Equipment replacement costs covered by equipment warranty;

(x) Payment of the owner’s or operator’s personnel for overtime or for staff time in planning or implementing "corrective action" as defined by KRS 224.60-115(4);

(y) Out-of-state travel expense, including air fare;

(z) Contractor markup expense for a normally expected overhead item or in-stock material;

(aa) Contractor markup expense for personnel costs;

(bb) Markup for pass-through costs for utilities and employee expense accounts;

(cc) Fifteen (15) percent markup for the costs of corrective action for an eligible company or partnership that employs a subcontractor, a subsidiary company, or other vendor, that is affiliated with the eligible company or partnership or a principal of the eligible company or partnership;

(dd) Overtime for eligible company or partnership personnel exceeding forty (40) hours, individually, during a standard workweek;

(ee) Actions resulting from contractor error or negligence;

(ff) A contractor surcharge implemented because the owner or operator failed to act in a timely fashion;

(gg) Costs covered by the contractor’s liability insurance;

(hh) Costs covered by insurance payable to the owner or operator;

(ii) Interest on an overdue account or loan;

(jj) Loss of business, income or profits;

(kk) An attorney fee related to:

1. Judicial or administrative litigation;
2. Consultation on administrative regulations;
3. Preparation or submittal of documentation related to the reimbursement process; or
4. Other legal services not integral to the performance of corrective action;

(ll) Corrective action costs incurred after the eligible company or partnership eligibility expiration date;

(mm) Corrective action activities performed subsequent to the issuance of a no further action letter, unless directed in writing by the UST Branch;

(nn) Facility or aesthetic improvements, including costs to upgrade the facility, except for approved surface replacement in accordance with Section 10 of this administrative regulation;

(o0) Decreased property values for the facility;

(pp) Costs of surface material replacement for areas not removed or damaged as part of corrective action; and

(qq) Unreasonable or unnecessary costs and expenses for corrective action, in accordance with KRS 224.60-140(5).


(1) If the applicant determines that the scope of work required in a written directive cannot
be completed without exceeding the total reimbursable amount set forth in the written directive, a request for re-evaluation of the reimbursable amount may be submitted to the UST Branch on the UST Re-Evaluation of a Reimbursable Amount, DWM 4291, and shall include:

(a) The submittal of three (3) current written estimates, for services or materials not provided by the contracting company or partnership, from subcontractors in the area in which the facility is located, if applicable;

(b) The submittal of an itemized cost breakdown of the eligible company's or partnership's time and materials to be used for the completion of the written directive; and

(c) The costs calculated using the personnel and equipment rates established in Section 3.0 of the UST PSTEAF Reimbursement Rates.

(2) The UST Branch shall review the itemized cost breakdown, determine the reasonable and necessary costs for the scope of work and;

(a) Rescind the original written directive, and issue a new written directive establishing a not-to-exceed amount if the itemized cost breakdown, as adjusted for reasonable and necessary costs, exceeds the reimbursable amount; or

(b) Deny the request for re-evaluation, established in the original directive letter, if costs itemized are at or below the initial reimbursement amount.

(3) If the establishment of a not-to-exceed amount is warranted, in accordance with subsection (2)(a) of this section, final reimbursement shall be determined on an actual time and materials basis, and the appropriate supporting documentation shall be submitted to the UST Branch, in accordance with Section 8(9) of this administrative regulation, as an attachment to the claim.

Section 15. Reconsideration for a Claim.

(1) An applicant may request a reconsideration of a denial of a claim request, or portion thereof by submitting a completed UST Reconsideration Request, DWM 4290, within thirty (30) days from the date the person has notice, or could reasonably have had notice, of the denial, which shall include:

(a) A statement of the grounds for reconsideration;

(b) Supporting documents; and

(c) Other evidence not previously considered.

(2) The cabinet shall review the previous claim decision, and shall revise the claim if the evidence accompanying the request warrants revision by demonstrating clear error or through submittal of additional documentation.

(3) The cabinet shall not reconsider a claim more than once.

Section 16. Signatures.

(1) Application and reimbursement forms required by this administrative regulation for which a signature is required shall be signed by an eligible petroleum storage tank owner or operator as follows:

(a) For a corporation or limited liability company, by:

1. A president, vice-president of the corporation in charge of a principal business function, or member, or any other person who performs similar policy- or decision-making functions for the corporation; or

2. A legally authorized representative or agent, except that a representative of an eligible company or partnership shall not have signatory authority for an owner or operator;

(b) For a partnership, sole proprietorship or individual, by:

1. A general partner;

2. Proprietor; or
3. Individual named as the applicant;
   (c) For a state or local governmental agency or unit, or non-profit organization, by:
   1. A principal executive officer, which includes a chief executive officer of an agency, or a
      senior executive officer, having responsibility for the overall operations of a principal geograph-
      ic unit; or
   2. A ranking elected official; or
   (d) A person designated by a court to act on behalf of the eligible petroleum storage tank
      owner or operator.

   (2) A claim form or application for assistance shall also be signed by an authorized repre-
      sentative of the eligible company or partnership, unless corrective action commenced prior to
      July 1, 1999.

   (3) The owner or operator shall submit documentary evidence to substantiate the legality of
      an authorized representative’s power of agency or power of attorney.

Section 17. Financial Audits.
(1) An entity shall be subject to a financial audit if it is an entity referenced in KRS 224.60-

   (l) (k).

   (2) The cabinet shall have the authority to audit an entity if:
   (a) A required document, or other document relevant to a cabinet determination, submitted
      to the cabinet appears to be fraudulent; or
   (b) There is evidence that the entity has violated a federal or state law, or a requirement of
      Title 401 of the Kentucky Administrative Regulations related to its actions.

   (3) Upon written request by the cabinet, records, as established in KRS 224.60-130(l)(k),
      shall be provided to the cabinet during a financial audit.

   (4) The cabinet shall notify the subject of the audit, in writing, of the date that the audit is
      scheduled to begin. The notice shall be sent at least ten (10) working days before the sched-
      uled start of the audit or a rescheduled audit.

   (5)(a) If the petroleum storage tank owner or operator fails to maintain records as required
      by KRS 224.60-130(1)(k), the cabinet shall recover any monies reimbursed to the owner or
      operator for the cost of corrective action at the facility to which the missing documents relate.

   (b) If an eligible company or partnership or subcontractor fails to maintain records as re-
      quired by KRS 224.60-130(l)(k), the cabinet shall recover any monies paid to the entity pursu-
      ant to a contract or agreement to perform a corrective action service at that facility, for which
      costs have been reimbursed by the cabinet.

   (6) If the audit by the cabinet finds an improper, irregular, or illegal use of any monies re-
      ceived directly or indirectly from the cabinet, or that the monies were obtained by fraud or mis-
      representation, the cabinet shall report the results of the audit to the proper authorities for civil
      and criminal investigation.

   (7)(a) Reimbursements to an owner or operator that fails to cooperate with an audit shall be
      subject to recovery by the cabinet.

   (b) Failure by an entity, that contracts or subcontracts for corrective action services at a fa-
      cility, to cooperate with an audit shall result in the recovery of funds paid by the cabinet for cor-
      rective action services at that facility.

Section 18. Account Balance.
(1) The unobligated balance of the FRA shall not be less than $1,000,000, to ensure a re-

   serve balance adequate to comply with federal financial responsibility requirements for partici-
   pants in the account.

   (2)(a) If the unobligated balance of the FRA is $1,000,000, or the reimbursement of addi-
tional claims would cause the unobligated balance of the fund to be less than $1,000,000, the cabinet shall immediately suspend claim reimbursements and the approval of applications until the unobligated balance is greater than $1,000,000.

(b) If the suspension is lifted, the priority of reimbursement for claims submitted related to an approved application for assistance shall be determined by the date of the claim submittal.

(c) During the suspension, all written directives from the cabinet shall be issued in accordance with Section 21 of this administrative regulation.

Section 19. Eligible Companies and Partnerships.

(1) To be eligible to contract with a petroleum storage tank owner or operator seeking reimbursement from the cabinet, a company or partnership shall:
   (a) Employ or contract with a professional engineer or a professional geologist;
   (b) Be authorized to conduct business in the Commonwealth of Kentucky and remain active, and in good standing, with the Kentucky Secretary of State;
   (c) Hold, in good standing, all licenses, permits, training certifications, or other authority required to perform corrective action services, or otherwise conduct business, in Kentucky;
   (d) 1. Maintain, at a minimum, general and professional liability insurance and pollution or property coverage in the amount of $1,000,000; and
      2. Add the cabinet as an additional interest on the policy to be notified, by the insurance company, if there is a lapse of insurance coverage;
   (e) Be approved in writing by the cabinet as eligible to contract with a petroleum storage tank owner or operator seeking reimbursement from the cabinet to perform corrective action services;
   (f) Submit the UST Application for a PSTEAF Eligible Companies or Partnerships, DWM 4284; and
   (g) Sign an application or claim payment request in addition to the eligible owner or operator. The eligible company or partnership shall certify that:
      1. The information provided in the claim is true and correct; and
      2. Each claim payment cost is reasonable, necessary, and was performed in compliance with 401 KAR 42:060 and this administrative regulation.

(2) Application requirements for a company or partnership eligibility shall include submittal of:
   (a) A completed UST Application for a PSTEAF Eligible Companies or Partnerships, DWM 4284;
   (b) Verification of the employment or contracting of a professional engineer or a professional geologist; and
   (c) A list of the names and address of officers and principals of the applicant.

(3) The cabinet shall inspect the records and business premises of the applicant if necessary to verify information in the application or to assist in the evaluation of the applicant's capabilities.

(4) The cabinet shall require additional information and documentation if necessary to verify information in the application.

(5) An application for eligible company or partnership status shall be denied if the applicant:
   (a) Fails to provide the information required in the application or in this administrative regulation;
   (b) Does not comply with the requirements of subsection (1) of this section;
   (c) Fails to allow cabinet staff to access company records for audit purposes in accordance with Section 17 of this administrative regulation;
   (d) Fails to provide additional information and documentation requested by the cabinet to
verify that the requirements of this administrative regulation have been met;
(e) Provides false or misleading information in the application; or
(f) Fails to maintain general and professional liability insurance and pollution or property
coverage.
(6) An applicant whose application for company or partnership eligibility is denied may ap-
peal the determination, by requesting a reconsideration in accordance with Section 15 of this
administrative regulation.
(7) The cabinet shall issue a letter of eligibility to a qualifying applicant.
(8) An amended application for a company or partnership shall be submitted if:
(a) The information in the UST Application for [a] PSTEAF Eligible Companies or Partn-
erships, DWM 4284, has changed; or
(b) Requested by the cabinet to submit an updated application upon the receipt of inform-
ation indicating a change to application information.
(9) Eligibility and renewal procedures shall be as established in paragraphs (a) through (d)
of this subsection.
(a) The cabinet shall issue a letter of eligibility to each company or partnership that success-
fully complies with this administrative regulation.
(b) Eligibility shall be renewed two (2) years from the date of the letter of eligibility. The
company or partnership shall be responsible for renewing eligibility prior to expiration.
(c) An application for eligibility renewal shall be submitted to the cabinet on the UST Appli-
cation for [a] PSTEAF Eligible Companies or Partnerships, DWM 4284.
(d) The failure of the company or partnership, under contract with an owner or operator, to
renew eligibility shall render corrective action costs incurred after the expiration date ineligible
for reimbursement.
(10) Revocation of eligibility procedures shall be as established in paragraphs (a) through
(d) of this subsection.
(a) A letter of eligibility issued in accordance with this administrative regulation shall be re-
voked if the eligible company or partnership:
1. No longer complies with the eligibility requirements established in subsection (1) of this
section;
2. Employs, or has a business relationship with, an employee or agent that knowingly sub-
mits materially false information or documentation, or a false payment request, to an owner, 
operator, or the cabinet;
3. Has a current officer, director, or principal of that company, that has been convicted of, or
found liable for, civil or criminal fraud or an environmental crime;
4. Has failed to comply with the terms established in Section 17 of this administra-
tive regulation; or
5. Obtained eligibility through fraud or misrepresentation.
(b) The cabinet shall issue a letter by certified mail notifying a noncompliant company or
partnership that its eligibility has been revoked by action of the cabinet.

Section 20. Laboratory Certification.
(1) Applicability and requirements for PSTEAF eligibility criteria for laboratory certification
shall be as established in this section.
(a) Owners or operators seeking reimbursement from the PSTEAF for analytical testing
shall utilize a laboratory certified in accordance with this section.
(b) This section shall apply to analytical testing performed on or after October 1, 1999.
(c) Owners or operators of a petroleum storage tank that fail to comply with this require-
ment shall not be reimbursed by the cabinet for costs related to analytical testing.
(2) Certification requirements for laboratory certification shall be as established in paragraphs (a) through (d) of this subsection.

(a) A laboratory shall demonstrate current accreditation by submitting documentation of certification by:

1. The American Association for Laboratory Accreditation; or
2. A state approved to accredit environmental laboratories, in accordance with National Environmental Laboratory Accreditation Program requirements and standards.

(b) A laboratory seeking certification from the cabinet shall submit a completed UST Application for Laboratory Certification, DWM 4283.

1. The application shall include proof of accreditation as established in paragraph (a) of this subsection.
2. The laboratory shall be capable of analyzing each of the parameters listed in Table 7 and Table 8 in the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060, using at least one (1) of the acceptable methods listed in the tables, except for mobile laboratories.

(3) The cabinet shall reimburse a petroleum storage tank owner or operator for the cost of a laboratory analysis if the:

(a) Analysis is conducted in accordance with the established parameters and methods;
(b) Analysis is required by written directive by the cabinet and performed in accordance with 401 KAR Chapter 42; and
(c) Laboratory is certified by the cabinet to conduct that analysis.

(4) Requirements for maintaining laboratory certification shall be as established in paragraphs (a) through (d) of this subsection.

(a) A certified laboratory shall maintain accreditation by the American Association for Laboratory Accreditation or the National Environmental Laboratory Accreditation Program for the duration of certification.
(b) If a certified laboratory’s accreditation, in accordance with subsection (1) of this section, is renewed, or otherwise changes in status, the certified laboratory shall submit updated documentation of the accreditation status to the cabinet within thirty (30) days.
(c) 1. A laboratory holding valid certification from the UST Branch issued prior to October 6, 2011 shall not be required to submit a new UST Application for Laboratory Certification, DWM 4283.
2. In order to maintain certification status, the certified laboratory shall comply with this subsection.
(d) If a certified laboratory fails to maintain certification in accordance with this subsection of this subsection, the laboratory shall be required to submit a UST Application for Laboratory Certification, DWM 4283, in accordance with subsection (2).

(5)(a) The cabinet shall revoke a certification if the applicant:

1. Obtains the certification through fraud or misrepresentation; or
2. Knowingly or intentionally submits materially false information to owners, operators, contractors, or the cabinet.
(b) The cabinet shall, within ten (10) days of a revocation determination, notify the laboratory, in writing, of the revocation of certification.

Section 21. Facility Ranking System.

(1) Upon a determination of insufficient PSTEAF funding to initiate corrective action at facilities, facilities shall be ranked according to the extent of damage to the environment, the potential threat to human health, and the financial ability of the petroleum storage tank owner or operator to perform corrective action, in order to prioritize the completion of corrective action and
the subsequent reimbursement of eligible costs.

(2) Actions directed and documented by the Environmental Response Team, upon the cabinet’s declaration of an environmental emergency, shall take priority over the ranking system in this administrative regulation. Once the Environmental Response Team terminates the emergency phase, subsequent actions at the facility shall be prioritized in accordance with this administrative regulation.

(3) Actions performed by, or on behalf of, the cabinet in accordance with KRS 224.60-135(2) shall not be subject to the ranking system.

(4) Facilities performing site checks or initial abatement, at the written direction of the cabinet in accordance with the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060, shall not be subject to the ranking system.

(5) Those facilities for which the owner or operator has verified, through submittal of a notarized UST Affidavit of Waiver for PSTEAF Reimbursement, DWM 4281, that reimbursement from the PSTEAF will not be sought shall not be subject to the ranking system.

(6)(a) Facilities eligible to participate in the FRA and the PSTA shall be ranked for purposes of addressing the completion of corrective action.

1. Facilities with releases for which the cabinet has not issued a no further action letter shall be a Rank 1, if:
   a. Contamination is confirmed within domestic-use wells, domestic-use springs, or domestic-use cisterns exceeding the maximum contaminant levels established in 401 KAR Chapter 8; or
   b. "Vapor intrusion", as defined by 401 KAR 42:005, is confirmed in occupied residential or commercial buildings.

2. All other facilities with releases for which the cabinet has not issued a no further action letter shall be a Rank 2.

(b) Facilities shall be further categorized within their respective rank based on the financial ability of the owner or operator.

1. Facilities shall be placed in Category 1 within their respective rank if:
   a. The owner’s or operator's average total income for the last five (5) years is less than or equal to $100,000; or
   b. The owner or operator is registered and recognized by the federal government as a tax-exempt nonprofit organization.

2. Facilities shall be placed in Category 2 within their respective rank if the owner’s or operator’s average total income for the last five (5) years is more than $100,000.

3. The cabinet shall utilize the information provided in an owner’s or operator's application for assistance for PSTEAF, for purposes of determining financial ability to perform corrective action.

(c) The cabinet shall be provided access to a facility for the purpose of verifying classification. Refusal by an owner or operator to allow access requested by the cabinet shall render the facility ineligible for reimbursement from the cabinet.

(d) If the cabinet receives misrepresentations, or otherwise inaccurate information, or receives new information related to specific facilities, it shall amend facility rankings and categories in accordance with this subsection of this section.

(e) Issuance of written directives shall be prioritized for facilities within the FRA and the PSTA, respectively, according to rank and category, in the following order:

1. Rank 1, Category 1;
2. Rank 1, Category 2;
3. Rank 2, Category 1; and
4. Rank 2, Category 2.
(f) The cabinet shall consider the current legislatively enacted budget and available funding in making the allocations established in subsection (1) of this section.

(g) The cabinet shall notify an owner or operator of the decision to suspend written directives for rankings within either the PSTA or the FRA, upon a determination of insufficient PSTEAF funding to initiate corrective action in all rankings.

Section 22. Extensions.
(1) The owner or operator of a UST system may request an extension to a deadline established by this administrative regulation or established by the cabinet in a written directive.

(2) The extension request shall be received by the UST Branch of the Division of Waste Management prior to the deadline.

(3) The cabinet may grant an extension, if an extension would be equitable, does not impact the PSTEAF's financial viability, and would not have a detrimental impact on human health or the environment.

(4) The cabinet shall not grant an extension for any requirements established in Sections 12 or 15 of this administrative regulation.

Section 23. Incorporation by Reference.
(1) The following material is incorporated by reference:
   (a) "UST Affidavit of Termination of PSTEAF Contract", DWM 4280, September 2019 [August 2018];
   (b) "UST Affidavit of Waiver for PSTEAF Reimbursement", DWM 4281, September 2019 [August 2018];
   (c) "UST Application for Assistance for PSTEAF", DWM 4282, September 2019 [August 2018];
   (d) "UST Application for Laboratory Certification", DWM 4283, September 2019 [August 2018];
   (e) "UST Application for [a] PSTEAF Eligible Companies or Partnerships", DWM 4284, September 2019 [August 2018];
   (f) "UST Claim Request for Actions Not Directed", DWM 4285, September 2019 [August 2018];
   (g) "UST Claim Request for Directed Actions", DWM 4286, September 2019 [August 2018];
   (h) "UST Miscellaneous Tasks Reimbursement Worksheet", DWM 4287, September 2019 [August 2018];
   (i) "UST Optional Soil Removal at Permanent Closure Reimbursement Worksheet", DWM 4288, September 2019 [August 2018];
   (j) "UST Payment Waiver", DWM 4289, September 2019 [August 2018];
   (k) "UST Reconsideration Request", DWM 4290, September 2019 [August 2018];
   (l) "UST Re-Evaluation of a Reimbursable Amount", DWM 4291, September 2019 [August 2018];
   (m) "UST Third-Party Claim", DWM 4292, September 2019 [August 2018]; and
   (n) "UST PSTEAF Reimbursement Rates", May 2019.

(2) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Division of Waste Management, 300 Sower Boulevard, Second Floor, Frankfort, Kentucky 40601, Monday through Friday, 8 a.m. to 4:30 p.m.

(3) This material may also be obtained at the Division of Waste Management’s Web site at eec.ky.gov/environmental-protection/waste. (32 Ky.R. 2207; 33 Ky.R. 471; 745; eff. 9-13-2006; 37 Ky.R. 2715; 38 Ky.R. 275; 530; eff. 10-6-2011; TAm eff. 7-8-2016; TAm eff. 12-21-2016; Crt eff. 10-9-2018; 45 Ky.R. 1384, 2378, 2644; eff. 4-5-2019; TAm eff. 5-7-2019; TAm eff. 9-25-