

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
PETROLEUM RESTORATION PROGRAM**

NEW NON-ELIGIBLE DISCHARGES AT EXISTING ELIGIBLE SITES

**LIMITED CONTAMINATION ASSESSMENT REPORT (LCAR) TO SUPPORT
A SITE REHABILITATION FUNDING ALLOCATION (SRFA) AGREEMENT
UNDER SECTION 376.30714, F.S.**

**PREPARATION GUIDANCE
REVISED MAY 2017**

Effective June 17, 1999, Chapter 99-376, Laws of Florida, provided amendments to Section 376.30714, Florida Statutes (F.S.), and authorized the Department of Environmental Protection (Department) to enter into site rehabilitation funding allocation agreements with applicants at sites with existing contamination eligible for state-funded cleanup at which a new discharge occurs after December 31, 1998. Section 376.30714(5)(a)1., F.S., requires an applicant to submit a Limited Contamination Assessment Report (LCAR) with the application for a site rehabilitation funding allocation agreement. The LCAR must be sufficient to demonstrate the extent of the new discharge and may include any evidence relevant to establish the extent or volume of the new discharge, or the impact of the new discharge relative to the existing contamination, in order to allocate the appropriate funding responsibilities of the applicant for the new discharge and of the Department for the existing eligible contamination. The LCAR will be further used as a basis for establishing the priority in which cleanup of the new discharge and the existing contamination will occur, based on the provisions of Section 376.3071(5)(a), F.S., and taking into consideration the cost-effectiveness associated with the timing of site rehabilitation activities.

A LCAR does not necessarily have to be of a scope comparable to a Site Assessment Report, as required by Chapter 62-780, Florida Administrative Code (F.A.C.), but it must be signed and sealed by a registered Professional Engineer or Professional Geologist as per Rule 62-780.400, F.A.C., and must be adequate to provide a reasonably accurate depiction of the extent and degree of previously existing contamination and the extent and degree of new contamination. The more information that is provided in the LCAR, the more accurate the funding allocation will be. Existing assessment information should be used to its maximum extent if that information is less than nine months old. Due to the time constraints associated with submittal of a cost share application and negotiation of the site rehabilitation funding allocation agreement following a new discharge, it will not be possible for the Department to request and obtain supplemental assessment data for the new release. Therefore, a consequence of an inadequate LCAR may be that the Department will be unable to negotiate the agreement.

In the event of a new release at an existing eligible site, the timeframe requirements of Chapter 62-780, F.A.C., are applicable until such time as the Department and the applicant sign a site rehabilitation funding allocation agreement. If free product associated with the new release is identified, within three days of discovery of free product, the owner, operator, or other responsible party shall take steps to obtain cleanup services for product recovery or initiate product recovery as required by Rule 62-780.500(2), F.A.C. The provisions of this section to discontinue product recovery after five days if state funding assistance will be sought is not applicable to a new non-eligible release. Therefore, free product recovery shall continue until free product associated with the new release no longer exists on the site or free product has been recovered to the maximum extent practicable. The initiation of a LCAR to support a site rehabilitation funding allocation agreement shall be considered adequate to satisfy the requirement of Rule 62-780.600(1), F.A.C., to initiate a site assessment following discovery of contamination, as long as the LCAR is initiated within 60 days of discovery of the contamination associated with the new discharge. The LCAR must contain, at a minimum:

- (1) If source removal for the new discharge has been performed, a source removal report must be provided in the Appendix of the LCAR. As stated above, prompt initiation of free product recovery for any new release is required by Rule 62-780.500, F.A.C. If discovery occurs shortly after the new discharge occurred, more aggressive source removal, including soil excavation, is strongly encouraged. If the source removal report and other LCAR documentation clearly indicate that the source removal has completely abated the new release, the Department may determine that a funding allocation agreement is not necessary. In that event a Site Rehabilitation Completion Order will be issued for the new discharge and the responsible party will have no further obligation for remediation of the new discharge. A prompt and effective source removal may ultimately be less costly for the party responsible for the new discharge than a cost share for a long term cleanup in the event that the new contamination disperses throughout the site.
- (2) A short site history which describes all current and past petroleum storage systems and the type of products stored in them, previous discharges, as well as the type and amount of products that were discharged as the result of the new release. A site map illustrating the locations of all current and past tanks and other potential sources of contamination at the source property and their associated integral piping and dispensers, and information sufficient to identify the source of the new discharge, must be provided.
- (3) Results of a well survey locating all private water supply wells (potable, irrigation, industrial, etc.) within a ¼ mile radius and public water supply wells within a ½ mile radius of the contaminated area. It is strongly recommended that all available records be checked (especially those at the local Department of Health office) and that a walk-through reconnaissance of the area be conducted to

complement those records. The use and construction details of wells identified during the well survey should be reported (if reasonably available), and a vicinity map illustrating the locations of the wells in relation to the source property must be provided.

- (4) Results of a soil assessment conducted in and around the new source area to determine if there is any contaminated soil present in the unsaturated zone and to estimate the horizontal and vertical extent of soil contamination in the unsaturated zone if contaminated soil is detected. Also, if contaminated soil is detected, at least three soil samples must be collected from areas where high, medium, and low OVA readings were detected and the samples analyzed for BTEX and MTBE using EPA Methods 8021 or 8260 and PAHs using EPA Methods 8100, 8270 or 8310. If it can be demonstrated that the only product stored at the source of the new release was gasoline, only sampling and analysis for BTEX and MTBE need to be performed.
- (5) Results from at least one properly constructed water-table monitoring well installed in the new source area. If groundwater contamination is detected, the direction of groundwater flow must be determined and if existing monitoring wells are not present and in appropriate locations, additional water-table monitoring wells must be installed to estimate the horizontal extent of the groundwater contamination due to the new release. If contaminant concentrations greater than the natural attenuation default concentrations are detected in one or more water-table monitoring wells, the vertical extent of the new contamination must be determined by installing one or more vertical extent monitoring wells near the most contaminated wells. A site map illustrating the locations of the monitoring wells and a table summarizing the well construction details must be provided. Well construction and lithologic logs must also be provided.

If a vertical extent well is installed and contaminant concentrations greater than the natural attenuation default concentrations are detected in that well, then it should be resampled and analyzed for the appropriate parameters to confirm the previous results. If the previous results are confirmed, a well with a deeper isolated screened interval should be installed to determine the vertical extent of groundwater contamination. Depending on the lithology, and whether a downward vertical gradient is present, additional intermediate depth wells may be necessary to determine the horizontal extent of the groundwater contamination in the intermediate depth zone.

If free product from the new release remains after free product recovery efforts, piezometers should be installed to estimate the horizontal extent of the free product.

- (6) Results from monitoring wells sampled and analyzed for BTEX and MTBE using EPA Method 602 or equivalent and PAHs using EPA Method 610 or equivalent

(see May 14, 2007 Memorandum on Quality Assurance and Related Issues for maximum acceptable detection limit). If it can be demonstrated that the original site contamination was gasoline only and the only product stored at the property at the time of the new release was gasoline, only sampling and analysis for BTEX and MTBE need to be performed. The groundwater samples collected must be analyzed by an FDEP approved laboratory and all required quality assurance samples must be collected and analyzed. A table summarizing the laboratory analytical results and the chain of custody record forms and water sampling logs must be provided.

If there are existing monitoring wells on-site that were used to assess the previously existing eligible contamination, at least two of the previously contaminated wells which are believed to be outside of the influence of the new release shall be sampled to allow the Department to update the previous assessment data. If no existing wells are available to determine the extent and degree of previously existing eligible contamination, the applicant is not responsible for monitoring well installation to make this determination. However, the applicant should notify the Petroleum Restoration Program immediately of the need for monitoring wells to be installed to determine the extent and degree of previously existing contamination such that the Department can arrange to have monitoring wells installed and sampled in a timely manner.

- (7) A table summarizing water-level data. Concurrent with every groundwater sampling event, a complete set of water-level measurements must be obtained to verify the direction of groundwater flow and to determine if the screened interval of each water-table monitoring well intersected the water table during the sampling event. These data must be provided in tabular form (including top-of-casing elevations, depths to water, and corresponding water-level elevations) and in graphic form showing the interpretation of groundwater flow direction.
- (8) If groundwater modeling is used to support the conclusion of the LCAR, an estimate of the hydraulic conductivity and fraction of organic carbon (f_{oc}) of the saturated zone in order for the Department to perform data analysis to develop the funding allocation. If a site assessment which estimated the hydraulic conductivity has previously been performed, that value may be used. Otherwise, it will be necessary to determine a value by field measurement. The f_{oc} estimate shall be the average of three representative samples obtained in the saturated zone. An estimate of the hydraulic gradient of the site shall be made from the collected monitoring well water-level data.
- (9) If the site of the new discharge is currently funded by the Petroleum Restoration Program, a notification of the new discharge should be submitted immediately to the Petroleum Restoration Program. The existence of the new discharge may necessitate a change in the ongoing funded activities for the site. The scope of ongoing assessment may need to be modified to adequately complement the

applicant's LCAR assessment activities, or an active remediation system may need to be evaluated to determine if there will be any operational or compliance problems with the existing system due to the new discharge.

- (10) If the LCAR has adequately determined the extent and degree of the previously existing as well as of the new contamination, include a proposal for funding allocation based on the LCAR assessment data. If the site is a Department funded site and there is an existing operating remediation system on-site, the LCAR shall evaluate the effectiveness of the existing system to remediate the new release while achieving air emissions and groundwater discharge requirements, and recommend any necessary system modifications to efficiently remediate the new contamination as a basis to support the proposed funding allocation. If the LCAR data are inadequate to characterize the previously existing contamination, the Department will propose a funding allocation ratio after completing assessment of previously existing contamination to supplement the LCAR.