

➤ **What is the smell associated with the soil excavation?** The principal odors are related to a number of the volatile hydrocarbon components of coal tar residues. This is the "creosote" type odor that is being noticed. The coal tar residues were produced and discarded during the original operations of the former manufactured gas plant (MGP), and are the primary reason for the cleanup being conducted on behalf of the City of Tallahassee (the City). Coal tar is a complicated mixture of several hundred substances, some of which have the combination of relatively low vapor pressures (i.e., they do not readily go from solid to vapor phase) and an odor which is detectable at very low levels, typically in the parts per billion range. Other odors that may be detected in air from time to time, in addition to the coal tar, are petroleum (e.g., diesel) from some parts of the excavation and exhaust from the heavy equipment that is involved in the excavation or transportation activities on-site.

➤ **Has any information been collected to determine what is present in the air?** Yes. Regular sampling of air is being conducted at several locations on the perimeter of the site, in order to monitor the air quality as it leaves the site. In addition, air monitoring is being conducted in work areas on-site during operations, for the purpose of making decisions about whether any respiratory protection is needed for workers. Those air data collected during operations have not indicated the need for any respiratory protection. The air data was also evaluated by a toxicologist and a WRS Certified Industrial Hygienist

➤ **Are the odors harmful?** No. In the three sampling events conducted, neither the background sample collected before operation on the site began, nor the two samples collected during active site operations, showed levels of chemicals which are of health concern. The vast majority of the 25 substances included in the air analysis were not even present at levels above detection limits. The categories of substances included in the air analysis are metals (e.g., arsenic, lead), volatile organics (e.g., benzene, toluene) and semivolatile organics (e.g., naphthalene, benzo(a)pyrene). These groups of chemicals were selected to be representative of the substances present in coal tar residues and petroleum products.

➤ **What measures are being taken to control the odors?** Several steps are being taken to minimize odors, including limitations on the "reworking" of soil by the loading equipment prior to transportation to the off-site disposal area and the use of a whitish foam odor-suppressant on the soil pile at the end of daily operations. While these two activities cannot eliminate the odors, they will help to minimize smells from the site.

➤ **The remediation taking place at the site (soil removal and landfill capping) does not involve treating the waste. Is the remedy safe and protective of human health?** Yes, once remediation is completed, the site will be safe, and of no exposure risk to human health and the environment. Contaminated soils in the area of the former MGP site are being excavated, transported to a secure landfill, and replaced with clean fill; thus, no exposure to contaminated soils will occur. Because it is not safe to dig up a landfill, capping the landfill was determined to be the best option for eliminating future exposure to landfill contaminants.

➤ **What is your opinion of how the Cascade Park project is going?** The project is going very well and is currently ahead of schedule. There is an excellent team of professionals working on the Cascade Park project. They have been proactively anticipating issues that may arise during the project and are using the best processes to complete the work. The US EPA and their on site technical professional are also monitoring the work progress. A response to a question posed by a citizen of Tallahassee indicates they are very happy regarding the progress of the job and professionalism of the Project Team. WRS and the City are doing an excellent job and are following applicable EPA guidelines.

➤ **Where is the contaminated soil going?** Impacted soil being removed from the area of the old MGP site is being transported and disposed of in an EPA-approved landfill. The landfill is in Valdosta Georgia. It is a Subtitle D landfill, which means it was constructed with a dual-lined leachate collection system. This design ensures that materials placed in the landfill do not leak or leach out and create contamination elsewhere.

➤ **Do you anticipate the remediation workers will have to wear protective equipment?** At this point we do not. However, our on-site Health and Safety representative continuously monitors the working atmosphere for contaminants that would trigger the need for respiratory protection requirements. We have occasionally noticed detections of airborne chemicals. However, these “spikes” have not occurred over a sustained period of time that would require the use of protective equipment.

➤ **What will be the condition of the former MGP area when remediation is complete?** The MGP area will be completed with a stormwater detention pond that is lined with a high-density clay material. The remainder of the site will be seeded with grass seed to prevent erosion and improve its appearance.

➤ **How soon after remediation will the property be turned into a City Park?** The City and Blueprint 2000 are proactively tackling this issue. At this time, Blueprint estimates an early park construction start date of 18 months following completion of remediation. The duration of subsequent park construction is not known at this time.

➤ **When it rains, how do you prevent contamination from getting into the stream?** Stormwater at the site is handled in the same manner as it was before the remediation project started. The creek is currently in the same configuration as it has always been (though it has been cleared of debris). Some site work requires that the creek be temporarily dammed, and at those times water is diverted downstream past the dam. Also, water that collects in the excavation is treated to permit requirements before being discharge to the City’s sewer system. Any staged soil that is awaiting transport is separated from the creek by silt fencing that is regularly inspected.

➤ **How was the excavation remedy chosen? Was cost the main factor?**

Several remedies were evaluated based on comparison with the 9 standard US EPA criteria:

- 1) overall protection of human health and the environment,
- 2) compliance with local and state regulations,
- 3) long term effectiveness and permanence,
- 4) reduction of toxicity, mobility, and volume of affected material,
- 5) short-term effectiveness,
- 6) implementability,
- 7) cost,
- 8) regulatory acceptance, and
- 9) community acceptance.

The excavation remedy was chosen because it is the method that best meets all of the criteria.

➤ **Was bioremediation an option? Why wasn't it chosen?** Bioremediation was a remedy that was evaluated. It was not chosen because it was determined that the soils of the area (inter-layered sands and clays) would not allow the bioremediation to be effective.

➤ **What drinking water wells are in the area? Are they impacted by the contaminants?** There is one City water supply well approximately 1/3 mile to the east of the site, and one well approximately 1 mile to the southeast. These wells are up-gradient of the interpreted groundwater flow direction in the area of the Cascades Park site. Contaminants from the site have not been detected in these wells.

➤ **Is the contamination in the groundwater leaving the area of the site?** Though the prevailing groundwater flow direction in the area of the site is toward the southwest, there has been no detection of groundwater contamination off-site. There is a relatively strong downward, vertical gradient at the site, and this appears to have prevented off-site migration of contamination.