Recommendations

1) Due to the concentrations of constituents in the fill and the proximity of the Miller Park Wellfield, the direct transport of fill materials downward into underlying natural materials should be minimized. If foundation depths exceed the depth of the fill, it is recommended that the fill materials be “cased off” prior to deeper subsurface penetration.

2) A qualified environmental professional should be present onsite during excavation activities to confirm that the fill does not contain industrial waste, residual waste, or municipal waste that may make the fill subject to additional regulation.

3) In order to minimize future liabilities, onsite soils should be managed within the footprint of the current filled area (the whole site). If soils must be disposed offsite, the soils should be disposed at a solid waste landfill.

4) Because Ohio EPA has taken the position that spent nontoxic foundry sand is regulated as a waste under R.C. 6111, it is recommended that unless all stormwater from the site will enter a combined sewer, the general stormwater permit for construction activities address the management of stormwater that has come into contact with the fill materials.

5) Due to the calculation of an increased risk for workers due to dermal exposure to arsenic and inhalation exposure to mercury, bid specifications should require contractors to develop a health and safety plan that addresses mitigation of the risks where workers are anticipated to be onsite for more than 90 days. (According to the risk assessment, acceptable mitigation of dermal exposure can be accomplished by wearing gloves and long sleeves and by encouraging workers to shower. Similarly, acceptable mitigation of inhalation exposure can be accomplished by limiting the number of fulltime days on site to less than 200.)

6) Bid specifications should require contractors to develop an OSHA compliance plan for protection of workers from lead exposure during construction/excavation.

7) Bid specifications should require contractors to conduct an initial air monitoring program to determine whether lead concentrations in onsite air exceed the OSHA lead action level of 30 µg/m^3 for onsite workers during construction. If the action level is not exceeded, no further air exposure monitoring is needed. If the action level is exceeded, administrative and/or engineering controls must be implemented to minimize worker exposure to lead and a medical surveillance program must also be implemented to assure that worker’s lead blood concentrations do not exceed 50 ug/dl.

8) Although most site construction plans include plans for the minimization of dust, we recommend that the bid specifications include specific requirements for site dust control to assist in the reduction of exposure of onsite workers to lead and other particulates.

9) The County has initiated soil gas sampling to confirm or deny if the vapor intrusion pathway to indoor air will pose an increased risk in the new building to residents and workers. If an increased risk is indicated, we recommend that the building design include the installation of a vapor barrier between the fill and the building slab (accompanied by either a passive or active gas venting system). We also recommend that an air permit be obtained for the associated venting system.