ARCHIVE: **Archived due to 2014 rule revision. TGC is no longer applicable to the 2014 rules, but remains relevant to the 2009 rules.**

TITLE: **Contour Survey Requirements**

DATE EFFECTIVE: October 2012

HISTORY: New addition to the Technical Guidance Compendium

KEYWORDS: Soil, elevation survey, institutional control.

RULES: OAC 3745-300-07(J)(14); 3745-300-11(D)(1)(d)

QUESTION: **When does a volunteer need to complete a soil contour survey when completing a voluntary action? What are the survey requirements?**

ANSWER: The VAP rules require that an elevation survey be completed for properties relying on institutional controls to achieve applicable standards. The elevation survey must:

- represent the ground surface elevation at the property post-remedy and the survey must cover locations where soil sample data was collected from identified areas where a point of compliance for direct contact with soil has been established (e.g. two feet);

- include those areas of the property where a point of compliance for direct contact with soil has been established in order to meet applicable standards. Areas where the property meets unrestricted use or which are not relying on institutional controls to meet applicable standards do not need to be surveyed to determine surface topography[1];

- be conducted by an Ohio registered surveyor or be accomplished through other methods deemed acceptable by the Agency. Other methods deemed acceptable by the Agency may include publically available GIS information, however survey accuracy standards must be met in order to be used[2]; and

[1] A property must be surveyed in its entirety including portions of the property that were not listed as identified areas as long as the entire property relies on a land use restriction and the entire

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property is subject to a point of compliance.

[2] Please contact Ohio EPA if any other method is being contemplated.

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- be accurately displayed on a scale map of the property. Contours must be drawn to a two-foot contour interval on the scale map of the property.

  During the field survey, in locations where contamination is not suspected to have occurred or no identified areas are present, the density of elevation points[3] (e.g., spot elevations) may be reduced. In locations were identified areas are situated or soil contamination is known to exist, then the density of elevation points should be increased to reduce the inherent error in contour map interpolation between known elevation points.

Additionally, a contour survey is not a mechanism to be used to determine the thickness of soil cover. The contour survey is intended to provide both the volunteer and Agency the property's final surface grade. The required soil depth and appropriate point of compliance underlying the property is assumed to have been met at the time the contour survey was conducted. Specifically, the contour survey provides a baseline reference of surface elevations on the VAP property to which the future surface elevation can be verified and shown to be in continued compliance with the stated point of compliance.

SUMMARY: An elevation survey is required for properties that rely on an institutional control where a point of compliance has been established in order to meet direct contact soil applicable standards.

OHIO EPA CONTACT: For questions concerning this issue, please contact the VAP central office at: (614) 644-2924.

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[3] Elevation point accuracy should be in the range of 0.1-feet to 0.3-feet.