



St. Joseph County Health Department

"Promoting physical and mental health and facilitating the prevention of disease, injury and disability for all St Joseph County residents"

January 4, 2010

Nick Molchan, REHS
Administrator

Indiana Department of Environmental Management
100 North Senate Avenue, Room IGCN 1101
Indianapolis, IN 46204

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DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
OFFICE OF LAND QUALITY

Attn: Loan Pham, Project Manager

RE: Use of County Code 24.20 as Institutional Control
Honeywell Industrial Park (VRP Site 6980601)

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Dear Ms. Pham:

The Health Department is conducting reviews of those sites that appear to be utilizing the County's Well Drilling & Water Supply Systems Ordinance as an Institutional Control. Honeywell's Management Plan for dissolved-phase contaminated groundwater off-site, identified in Section 2.2.1.4 in the April 2001 Remedial Work Plan approved by IDEM, states the following:

In 1998, the St. Joseph County Health Department implemented a Well Drilling and Water Supply Systems Ordinance, Ordinance No. 101-98, amending Title 24 of the St. Joseph County Code. This ordinance requires connection to the municipal water supply system, unless financial hardship can be demonstrated. Furthermore, the ordinance requires that a permit must be obtained prior to construction of a water supply well in the county. A condition of the permit is that if the well is installed hydraulically down gradient from any known pollution source, there must be a minimum separation distance of 1,000 feet (24.20.04 D). Additionally, wells must have a minimum depth of 35 feet and an available drawdown of 20 feet. The depth to the bottom of the shallow aquifer in the off-site portion of the plume at the Honeywell Complex is less than 35 feet, and at most locations there is less than 20 feet of saturated thickness. In the area of the off-site plume resulting from the Honeywell Industrial Complex (discussed in Section 2.2.4), the hydrogeology of the shallow aquifer, regardless of the presence of contamination, would preclude the installation of a water supply well in the off-site portion of the plume. Additionally, representatives of the City of South Bend Water Works and the St. Joseph County Health Department have stated that individuals would be directed to connect to the municipal water supply system, if such a system exists.

The 1998 version of the Well Drilling & Water Supply Systems Ordinance only addressed potable water wells whereas the current version (revised in 2005) addresses both non-potable and potable wells. While it is true that no potable wells would have been granted approval in the vicinity of the site under either version of the ordinance based solely on the availability of municipal water, non-potable wells may be permissible under the current version and may create a temporary exposure pathway of the contaminated groundwater. Furthermore, operation of a groundwater well off-site (such as a dewatering well) may affect the migration of contamination through the aquifer. IDEM's policy regarding release of liability for response costs for cleanup of a release of petroleum or a regulated substance due to subsurface migration in an aquifer may exclude property owners that create such a condition through operation of a ground water well.

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The 1998 version of the County's ordinance also did not explicitly address petroleum or regulated substance groundwater contamination sites. Honeywell's citing of the separation distance of 1,000 feet appears to have been indiscriminately applied. The facility occupies over 110 acres. In citing the separation distance, the Health Department assumes they were utilizing the minimum separation distance specified for an existing, closed or abandoned solid or hazardous waste disposal facility as an approximately 18,000 square foot area located in the western portion of the complex was identified as a disposal area (Area 3/11). This area is located more than 2,400 feet from the suspected source area (Area 14) of the off-site groundwater contamination. It cannot be ascertained from what point Honeywell expected the Health Department to enforce the separation distance. However, assuming they were applying the separation distance from the extent of the groundwater contamination, this requires that the point of compliance of the pollutant source (in this case the extent of the plume of chlorinated compounds above the VRP Tier II cleanup goals) be identified. In the case of the deeper aquifer unit, groundwater flow is to the northeast off the site and the extent of the chlorinated compounds plume was identified as the approximate center of the park (located northeast of the site). However, in the shallow aquifer system (with flow to the north-northeast in the area northeast of the facility), the point of compliance of the plume of chlorinated solvents (identified at the time) has changed since IDEM's acceptance of the RWP and is currently unknown. The concentration of Cis-1,2-Dichlorethene located in well S22 at the boundary of the park and the residential area along West Westmore Street has exhibited an increasing trend above the VRP cleanup goals since 2002. Monitoring well S23, the furthest downgradient well in the off-site area was identified in the RWP as not exhibiting any concentrations of chlorinated compounds but has, since 1998 been found to contain TCE at concentrations above the Tier II cleanup goals. Furthermore, it is not clear why Honeywell's consultant used groundwater data from 1997 in the RWP report when they had included more recent data for other areas of the report (soil gas vapor survey – Fall 2000).

The provision for the establishment of Administrative Control Areas (ACA) under section 24.20.150 of the current St. Joseph County Well Drilling & Water Supply System Ordinance enables the improved management of potential exposure to contaminated ground water from existing as well as proposed wells. The ACA is a geographic area that consists of the identified groundwater contamination as well as a buffer zone. Control measures (may) include:

- Analysis of groundwater; All property transfers in the county will be evaluated within 30 days with respect to their location relative to ACAs. Those properties within an ACA may be required to conduct analysis of ACA contaminants of concern.
- Identification of potential influences of existing & proposed wells upon contaminant migration,
- Installation and maintenance of water treatment systems on potential/projected contaminated potable wells,
- Connection of identified as well as potential/projected contaminated potable well users to public water supplies,
- Initial and recurring notification of property owners that are/may be affected by the groundwater contamination so that disclosure upon transfer of the property is made to purchasers. An annual Review of the ACA will be conducted by the Health Department to include a comparison of County Assessor's recorded property transfers and the Health Department's property transfers as recorded through the County's required property transfer assessment (Source Water Protection Ordinance).
- Recording of Environmental Notices on those properties where a non-permanent remedy exists (i.e. water treatment systems requiring maintenance to remain effective),

A responsible party desiring to utilize the County's Well Drilling & Water Supply Systems Ordinance as an Institutional Control for management of off-site groundwater contamination must receive the County's as well as IDEM's approval and have an ACA established. The Health Department has no record of the establishment of an ACA for this site. The RP must submit a formal request to the Health Department of their desire to use the ordinance for the explicit purpose of an institutional control of risk to exposure of off-site contaminated groundwater. Upon receipt of the request, the Health Department will consult with IDEM on placement of the ACA boundaries.

The Health Department's establishment of ACAs was intended to control human exposure to contamination in existing groundwater that was not otherwise being controlled or monitored. It was not intended to be used as a part of a remediation plan to allow natural attenuation to be used in place of active remediation measures. We realized that natural attenuation may be the best solution in certain circumstances and may establish ACAs to help facilitate this solution. However, we do not intend to allow the use of the Well Drilling and Water Supply Systems Ordinance to facilitate leaving contamination in the groundwater that would otherwise be remediated.

As we anticipate increased use of the Well Drilling & Water Supply Systems Ordinance for use as an Institutional Control, we are forwarding a copy of this letter to the Branch Chief of the Remediation Services Branch as well as the Section Chief of Risk Services. Please do not hesitate to contact either John Lankowicz at 574-245-6711 or myself at 574-245-6760 with any questions or concerns you may have.

Sincerely,



Marc E. Nelson
Environmental Health Director

Cc: File Honeywell ACA, File 6.9.2

Bruce Oertel, Branch Chief, IDEM Office of Land Quality, Remediation Services Branch

Jeff Sewell, Section Chief, IDEM Risk Services

Steven Murray, MACTECH

Chuck Geadelman, Honeywell International