MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

August 18, 2004

TO: Sybil Kolon, Jackson District Office
Remediation and Redevelopment Division (RRD)

FROM: Steve Cunningham, Cadillac District Office, RRD

SUBJECT: Pall/Gelman Institutional Control Proposal

Per your request, I have reviewed the Pall Life Sciences (PLS) institutional control (IC) proposal as represented on page 81 of their Feasibility Study (FS) in conjunction with the Washtenaw County Rules and Regulations for the Protection of Groundwater, adopted February 4, 2004 (Rules). The proposal, as presented, will not satisfy the requirements of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The reason and basis for this conclusion are summarized below.

Please note that a local ordinance can be approved as an IC only in relation to a specific Remedial Action Plan (RAP) or interim response designed to meet criteria (IRDC). This allows us to determine if the IC is responsive to risks in all the exposure pathways that need control or whether additional exposure controls are also required. I presume that the current proposal is designed to serve as an exposure control for exposures to groundwater via ingestion. Through the review of the RAP or IRDC for any given facility, all the relevant exposure pathways will be analyzed. The Rules currently under review should only be considered as they fit into a comprehensive approach to the PLS facility. In other words, they should only be considered along with all of the other elements designed to control exposures in what would otherwise be an approvable RAP or IRDC. RRD procedures require that decisions regarding the completeness of approaches to facility closures go through the Quality Review Team (QRT) review process. Until such time as a complete RAP or IRDC is submitted, our comments concerning this set of Rules should be considered to be advisory in nature.

General Issues

First and foremost, although the PLS FS suggests that the objective of preventing unacceptable exposures will be accomplished through the utilization of a “combination” of existing ordinances and other institutional controls such as stipulated orders of the court, there is no detailed description of how this will be accomplished. For reasons described below, the Rules themselves do not provide an exposure control mechanism that satisfies the requirements of Section 20b(5) of Part 201 or that follows our guidance closely enough to ensure exposure control reliability. If PLS wishes to supplement the Rules with other institutional control instruments, the combination of controls must be described in detail before an approval can be granted.

In general terms, the Washtenaw County Rules will not be acceptable as a reliable exposure control mechanism because they do not eliminate all of the groundwater pathway where exposures can occur. Namely, there is no prohibition against the use of existing wells currently threatened or impacted or any reliable process for the Washtenaw County Health Official to know when to require abandonment of existing wells in the future. The current situation

demonstrates this point. More than 30 residential wells are currently sampled because they are either already impacted or are thought to be threatened. The Rules, which are already enacted, do not require the abandonment of these drinking water supply wells. While their continued use in concert with regular monitoring is an acceptable short term condition, the current situation falls short of being a reliable exposure control mechanism as required by Part 201. Unless the plumes have been demonstrated to be stagnant and not changing in dimension, the same problem exists for existing wells that may become threatened in the future.

In addition, contrary to statements made by PLS, the Washtenaw County Rules also do not adequately protect against the installation of new large volume wells that could exacerbate the contamination by changing flow conditions. It is true that Sections 2:1 and 2:5(b) of the Rules address a portion of this issue through the permitting process. However, these Sections are too vague and ambiguous to be reliable. For example, what process will be used to produce and analyze the hydrogeological data necessary for the health officer to make his or her decision regarding issuance of a permit for a high volume well in or near the plume? The Rules have no requirement in this regard.

Specific Issues

+ The Rules do not satisfy the requirements of Section 20120b(5) that states that the MDEQ must be noticed 30 days prior to modification, lapsing, or revocation of the regulations.

+ Unless there is a blanket prohibition against all wells, it is the RRD's policy that any acceptable IC pursuant to Section 20120b(5) must include, at a minimum, map(s) which delineate the plume boundaries of those plumes for which the IC serves as an exposure control. Reference to a "zone" where wells could not be installed is mentioned in the PLS FS; however, the restricted zone concept is not included in the Rules. Maps depicting a restricted zone would be very helpful and serve as a basis for the health official's denial of permits. These maps could be referenced in the regulations and made readily available to the public by locating them in a public place; e.g. health department, public library, etc.

+ The county has the ability to deny a permit pursuant to Section 2:5(b); however, the specific conditions under which a denial would be issued must be defined in more detail. For example, in Section 2:5 a permit can be denied where the installation, in the opinion of the Health Officer, would "create a dangerous condition." The regulations would be more reliable if, for example, they explicitly stated that a permit would be denied if the proposed well location was within the area of the restricted zone depicted in an attached map. At a minimum, any drilling site within an identified plume which utilizes the IC as an exposure control must either be denied or require special construction specifications to avoid cross contaminating another aquifer.

+ Regarding existing wells - As described above, this IC does not deal with currently existing wells which may be within the plume boundaries (and buffer zone). Either this IC must be modified to deal with this issue or all currently existing wells (if any) within the plume boundaries (and buffer zone) must be properly abandoned prior to RAP approval.

+ Section 2:5(a) allows for an individual variance from the Rules regarding isolation distances. If a restricted zone is established, denials of permits within this zone should not be subject to appeal.

While many of the specific issues appear to be easily addressed, the primary problem with approval of these Rules as an IC centers around the continued existence of drinking water wells in an area threatened or impacted by the PLS plume(s). Until this primary issue is addressed, the approach does not appear workable. Please contact me if you would like to discuss further. Thank you for the opportunity to comment and help assure consistency.

cc: Lynelle Marolf
Mitch Adelman
John Alford