

groundwater. We believe that the SL modeling results closely match the § 258.40 requirement, because the infiltration data used for the SL scenario were derived from municipal landfills with composite liners (*i.e.*, a combination of a geomembrane liner and a clay liner of some sort). This modeling, reflected in the § 261.32(c)(2) listing levels, demonstrates that the majority of the constituents that warrant establishment of listing levels based on a clay-lined landfill scenario (*i.e.*, the § 261.32(c)(1) levels) are effectively controlled in a landfill with a composite clay and synthetic liner similar to the liner required under § 258.40. Our modeling of the composite liner scenario indicates that only one constituent, toluene-2,4-diamine, poses risk that warrants further control due to possible infiltration through a composite liner system.

Based on our risk assessment results that indicate that the majority of the assessed constituents can be safely managed in § 258.40 compliant landfills, we have proposed to exempt those wastes that would otherwise meet the K181 standards when those wastes are managed in landfills subject to the § 258.40 standards, so long as the wastes do not contain mass loadings in excess of the § 261.32(c)(2) standard of 140 kg/yr we are proposing for toluene-2,4-diamine.

Hazardous waste regulations require double composite liners that are even

more protective than part 258 composite liners. Some generators of dyes and/or pigments nonwastewaters may choose to dispose of their wastes in hazardous waste landfills. Wastes which contain mass loadings below the § 261.32(c)(2) standard would not pose threats if placed in landfill cells subject to the hazardous waste landfill requirements. Accordingly, we are also proposing to exempt wastes that would otherwise meet the K181 listing if they do not exceed the § 261.32(c)(2) mass level and if they are placed in landfill cells subject to 40 CFR 264.301 or § 265.301. We request comment on this exemption.

3. Selecting K181 Constituents and Mass Loading Limits

As described in section III, we developed risk-based mass loading limits for the set of constituents shown in Table III-1. In general, we relied on the modeling results to guide us in deciding which constituents would be appropriate in defining these dyes and/or pigments production nonwastewaters as listed hazardous wastes. We dropped constituents from further concern if the calculated allowable mass loadings exceeded 10,000 kg/yr, because these constituents are unlikely to occur in these wastes above this level. That is, mass loadings of this magnitude are so high in comparison with expected waste generation rates, that the resultant theoretical concentrations are well in excess of the concentrations we expect

to be present in these wastes and thus can be considered implausible. Thus, using this concept of a theoretical waste concentration to screen the constituents listed in Table III-1, we narrowed the list of constituents by eliminating those with calculated allowable mass loadings above 10,000 kg/yr.

Table IV-3 summarizes various information sources we have identified that link these chemicals to the production of dyes or pigments of concern. We believe this information supports our proposal to propose listing levels for these constituents in K181. Additional details are presented in the Listing Background Document and in "Background Document: Development of Constituents of Concern for Dyes and Pigments Listing Determination," both of which are available in the docket for today's proposal. We solicit comment on the proposed list of constituents and their levels in Tables IV-1 and IV-2. We seek comment and supporting information as to whether any constituents should be added to or dropped from the list of constituents of concern for dyes and/or pigments nonwastewaters and the basis for such action. More specifically, we seek any information that may assist us in deciding whether any of the constituents in Table IV-1 are unlikely to be present at the levels of concern, and thus whether we should drop them from the listing.

TABLE IV-3.—OVERVIEW OF DATA SOURCES LINKING K181 CONSTITUENTS TO DYES AND/OR PIGMENTS PRODUCTION

Constituent	CAS No.	Analytical data	Colour index	TRI	EU Ban	§ 3007 survey	Manufacturer web sites
Aniline	62-53-3	X	X	X	.....	X	X
o-Anisidine	90-04-0	X	X	X	X	.....	X
4-Chloroaniline	106-47-8	X	.....	X	X	.....	.....
p-Cresidine	120-71-8	.....	X	X	X	.....	X
2,4-Dimethylaniline	95-68-1	X	.....	.....	.....	X	X
1,2-Phenylenediamine	95-54-5	X	X	X	.....	.....	X
1,3-Phenylenediamine	108-45-2	.....	X	X	.....	X	X
Toluene-2,4-diamine	95-80-7	.....	X	X	X	.....	X

We also specifically seek comment on the constituent in Table IV-2 that is at issue for wastes disposed of in a landfill subject to § 258.40, § 264.301 or § 265.301 design requirements. TRI releases for toluene-2,4-diamine were reported by two dyes and/or pigments production facilities. One facility reported an annual release of less than 500 lbs., or 227 kg (*i.e.*, as reported in a Form A for the TRI). The second facility reported the transfer of 396 kg of mixed toluenediamine isomers to a broker for disposal; we could not determine whether this waste was

treated prior to disposal. The TRI data therefore indicates that one or two facilities may be disposing of toluene-2,4-diamine in the modeled management practice at levels on the same order of magnitude as the proposed listing levels. In addition to the TRI data, the Colour Index and two facilities' Web site indicate that four companies manufacture products that may be derived from toluene-2,4-diamine. Note that we do not have any analytical data for this constituent in dye and pigment wastes, because we did not analyze wastes for this chemical.

After evaluating all available information, including information on the potential presence of toluene-2,4-diamine at the proposed levels in nonwastewaters and the current use of this constituent in dyes and/or pigments production, we will determine whether toluene-2,4-diamine should be included in § 261.32(c)(2).

4. Assessment of Biodegradation

As described in section III.G.2.d.i, we accounted for the biodegradation of the constituents of concern in our landfill modeling. In modeling biodegradation, we used anaerobic degradation rates