The mass/day reduction of a particular underlying hazardous constituent can be calculated by comparing the injected baseline with the allowance. The injected baseline is determined by multiplying the volume/ day of hazardous waste generated (and subsequently injected) times the concentration of hazardous constituents prior to the pollution prevention measure. The allowance is determined by multiplying the volume/day of a hazardous constituent generated/ injected times the UTS for that constituent. The difference between the injected baseline and the allowance is the mass/day reduction.

After successful employment of a pollution prevention measure, the facility must demonstrate that the injected mass achieves the required mass/day reduction. The post-pollution prevention measures would be corrected for production variations by multiplying the mass/day reduction times the ratio of the pre-pollution prevention production baseline divided by the production on the day of sampling after the pollution prevention is successfully implemented. A correction for production variations is needed because the amount of an underlying hazardous constituent in the injectate is dependent upon the level of production. If the initial reading is taken on a day of low production, and the post-pollution prevention reading is taken on a day of high production, then without the correction factor the mass/day reduction calculation would be an underestimate.

The following is an example to illustrate this discussion:

Facility X is daily injecting 1 lb. of benzene (an underlying hazardous constituent in a characteristically hazardous wastestream). The mass allowed for benzene (based on the volume of the hazardous wastestream they inject and the UTS for benzene) is 0.3 lbs. Therefore, the mass of benzene that needs to be removed in order for Facility X to be in compliance with the LDR is 0.7 lb.

Facility X decides to use pollution prevention to remove the 0.7 lb. of benzene from their system. Before employing pollution prevention, Facility X monitors and determines that on a day when they produce 10 tons of product, 3 lbs. of benzene is being injected. After employment of pollution prevention, Facility X monitors and determines that 1 lb. of benzene is being injected. On this day of monitoring they are producing 5 tons of product. Therefore: 3 lbs. -1*(10/5)=1 lb. of benzene removed, which means they are in compliance with LDR, since 0.7 lb. was all that was necessary to be removed.

EPA is proposing that the results of the monitoring of the underlying hazardous constituent concentration and the volume of the hazardous waste stream being injected, both on the day before employment of pollution prevention, and the day after successful employment of pollution prevention, be reported to the EPA Region or authorized State as a one-time notification. The facility will also include in this report a description of the pollution prevention method used. In addition, the facility will monitor and keep on-site records of the results on a quarterly basis. Quarterly monitoring is already required under SDWA regulations (40 CFR 146.13(b)). The reporting requirements for this option will be a one-time notification; however, if the facility changes its pollution prevention method, they must repeat the initial monitoring and notify the EPA Region or authorized State. The Agency is proposing to consider only those pollution prevention measures taken after the date of publication of this proposed rule.

EPA is proposing that, at this time, the pollution prevention alternative as described in this section of the preamble, be available only for facilities using Class I nonhazardous injection wells. EPA is not proposing the same alternative for facilities using surface impoundments because until the LDR Phase IV rules are completed, there will not be a test as to what comprises equivalent treatment at such facilities. That is, before EPA determines how such issues as potential releases to air and groundwater are to be resolved, there is no final equivalency standard for these facilities. It thus appears to EPA to be premature to determine how a pollution prevention alternative would fit into such a scheme. EPA also notes that because surface impoundments can pose particularly adverse environmental risks, see RCRA section 1002(b)(7) and CWM v. EPA, 919 F. 2d 158 (D.C. Cir. 1992), the Agency in any case may wish to develop alternative approaches for decharacterized wastes being managed in such units.

EPA also solicits comment on a number of issues relating to this option. The first is comment on using other production parameters besides or in lieu of volume (e.g., mass, square footage, etc.). The second is comment on use of site-specific non-linear production relationships and multiple production factors to deal with potential differences in underlying hazardous constituents produced in the hazardous and nonhazardous waste streams. Third, EPA solicits comment on whether more than one day is needed for monitoring pre and post-employment of the pollution prevention option (i.e., some pollution prevention methods may require more than one day to show results).

EPA also solicits comment on the best means of ensuring that the mass reductions achieved through this pollution prevention alternative are objectively verifiable and enforceable. In particular, EPA solicits comments on the best means of documenting baseline levels, and whether flow reductions (as opposed to hazardous constituent removal) should be allowed as an exclusive means of obtaining the requisite reductions in mass loadings of hazardous constituents.

Finally, EPA requests comment as to whether it may eventually be possible to implement this type of alternative by means of a pollutant trading type of approach, whereby the hazardous constituent being removed by means of pollution prevention need not be identical to the hazardous constituent in the characteristic stream. For example, carcinogenic metals could all be grouped rather than evaluated individually. This type of approach may add desirable flexibility if appropriately constructed.

4. De Minimis Volume Exclusion

There is a question of whether EPA should require treatment of relatively small decharacterized hazardous waste streams injected into Class I nonhazardous wells when the result will be essentially the same level of contaminants being injected (and thus risks are not measurably reduced). Therefore the Agency is proposing to establish a de minimis volume exclusion for small volumes of formerly hazardous wastes being injected into these wells along with a greater volume of nonhazardous waste.

There are two existing LDR de minimis provisions (§ 268.1(e) (4) and (5)). Both are for ignitable and/or corrosive wastes (D001 and D002); the first is for de minimis losses of D001 or D002 to wastewater treatment systems of commercial chemical products, while the second is for de minimis losses of D001 or D002 laboratory wastes. Under the approach being proposed today, when underlying hazardous constituents are present in ICRT wastes at concentrations less than 10 times UTS at the point of generation, and the combination of all of the characteristically hazardous streams together are less than 1% of the total flow at point of injection and after