



DNREC/EPA Fact Sheet #10 July 7, 2003



Metachem Products, LLC EPA and DNREC to Begin Chlorobenzene Removal and Separation Project (CR/SP)

Background

Since early spring 2003, EPA and DNREC have been preparing for the start of the Chlorobenzene Removal and Separation Project (CR/SP), which is the next major decontamination effort planned for the Metachem site. The CR/SP is a materials-separation project that will reduce the risks posed by the chlorobenzene-mixture liquids currently stored at the site. EPA and DNREC will separate 29 million pounds of chlorobenzene chemicals using existing plant equipment specifically modified for this project. The process will separate existing chlorobenzene mixtures into two separate components based upon boiling point. The lower boiling point (lighter) components will contain chlorobenzenes that remain liquid at ambient temperatures. The higher boiling point (heavier)

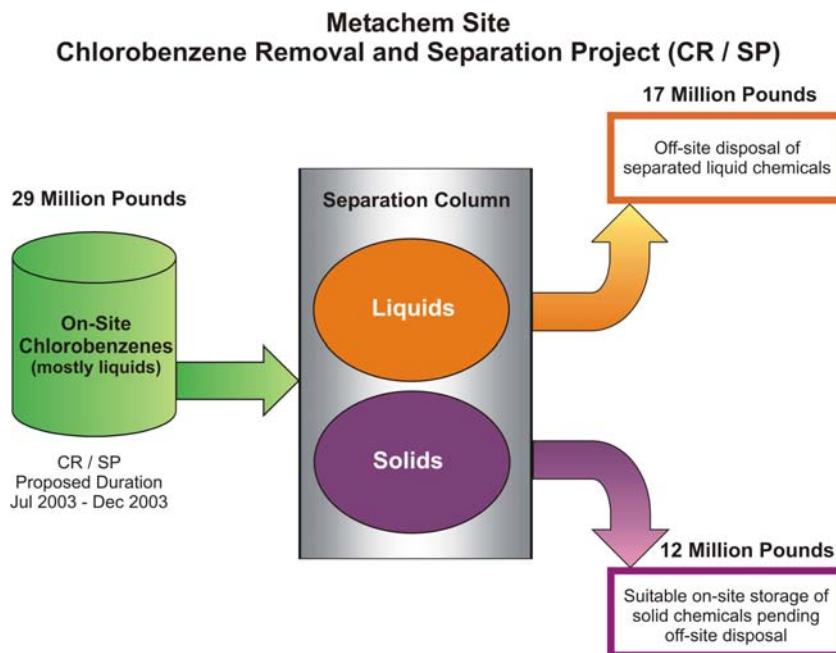
components will remain solid at ambient temperatures. These separated streams will be more manageable for short-term off-site disposal (chlorobenzene liquids) and longer-term on-site storage (solids). **The critical preparations are now complete, and the project is scheduled to begin in mid-July 2003. The CR/SP is expected to take less than six months to complete.**

EPA and DNREC introduced the objectives and technical background of the CR/SP to the public during an April 10, 2003 public availability session and also published two fact sheets about the project (Fact Sheet # 8 [Major Decontamination Effort Proposed] and a Supplemental Fact Sheet [CR/SP – Additional Technical Information] – see the following web site for copies of these previous fact sheets: www.dnrec.state.de.us/DNREC2000/Divisions/AWM/do/metachem.asp).

Chlorobenzene Removal and Separation Project (CR/SP) Operations

EPA and DNREC have made several modifications to the CR/SP approach since the project was first described to the public in April 2003. These modifications were made to improve worker safety and further reduce the potential for a release from the operation. These modifications will also expedite future decontamination actions.

The CR/SP will now use a single-step distillation process (see schematic below) rather the two-step distillation process proposed originally. During the last few months, EPA and DNREC found that extensive modification and upgrade of plant equipment were required for a two-step process. In addition, a two-step process would be more difficult to operate and maintain during the CR/SP. Given these findings, EPA and DNREC selected the single-step process as the most effective way to safely consolidate and remove PCBs from the chlorobenzene mixture, and segregate the liquids. The single-step process will use less equipment, take less time, have fewer emissions, and be an overall safer operation.



As a result of the change to a single-step distillation operation, there are now only two end products (a liquid and a solid) generated from the process instead of the three end products (a liquid and two solids) proposed originally. The CR/SP will now generate: (1) a liquid mixture containing monochlorobenzenes, dichlorobenzenes, and trichlorobenzenes (approximately 17 million pounds); and (2) a single solid mixture containing PCBs, tetrachlorobenzene, and other toxic solid materials (approximately 12 million pounds). A separate solid mixture containing non-PCB material (a by-product described in the original CR/SP proposal) will not be generated because of the elimination of one distillation step.



The liquid mixture separated during the process will be stored temporarily in five on-site storage tanks. EPA and DNREC found these tanks to be acceptable for liquid storage based on extensive inspections and also have completed non-destructive integrity tank testing on the tank that will be used first. The other tanks will be tested prior to use. These liquids will be ready for off-site disposal during the CR/SP, pending prioritization of site activities.

The solid mixture separated during the process will be placed in high-density polyethylene (HDPE) containers (see photo) and stored securely in the on-site warehouse pending future off-site disposal. These containers are designed to safely contain the solid mixture during storage. The time frame for the disposal of this material is unknown, but is not likely in 2003 or 2004.

Under the original CR/SP proposal, the solid mixture containing PCBs was to be disposed off-site as part of the CR/SP. However, no off-site disposal of the solid mixture is currently planned as part of the CR/SP. As a solid, this mixture does not pose an immediate or high-risk threat, and is more suitable at this time for longer-term storage at the site. Consequently, EPA and DNREC will evaluate the disposal of this material in the future, and focus available resources on additional site decontamination and threat reduction efforts.

CR/SP Monitoring Activities

EPA and DNREC developed an Operations Plan that includes detailed operating and monitoring procedures to ensure the separation process is working safely and efficiently. A special emphasis of this plan is an emergency shutdown procedure, as well as an emergency contact list. The project team has now been fully trained on all aspects of the Operations Plan and is ready to start the project.

EPA and DNREC will conduct around-the-clock air monitoring throughout the project. This monitoring will include a combination of fixed real-time monitoring points, mobile roving monitoring teams, and scheduled hourly and daily inspections of key process equipment to identify unacceptable emissions. Unacceptable emissions from the column, valves, flanges, tanks, piping, etc., as defined in the CR/SP Operations Plan, will result in modification or shutdown of the CR/SP operation.

NOTICE OF PUBLIC AVAILABILITY SESSION

EPA and DNREC will conduct a public availability session about the start of the Chlorobenzene Removal and Separation Project at the Grassdale Conference Center (108 Reedy Point Road, Delaware City) on Thursday, July 10, 2003, from 7:00 to 8:30 p.m. EPA and DNREC officials will be available to discuss the CR/SP with the community during this time. In addition, an informal presentation (15 minutes) about the project will occur at 7:30 p.m.

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For additional information about the project, visit the following websites:

EPA's web sites: www.epaosc.net/Metachem and www.epa.gov/reg3hwmd/super/DE/standard-chlorine-de/
DNREC's web site: www.dnrec.state.de.us/DNREC2000/Divisions/AWM/do/metachem.asp