

Document # Unnumbered - 1 page ; Date 2/16/79 ;

Title/Subject Letter, TE Bard and DT Duncan to VL Turner, USE OF TRICHLOROETHYLENE IN MRDF-CPL VAPOR DEGREASERS

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Kevin J. Smith
K-25 Classification & Information Control Officer

2/16/79
Date



NUCLEAR DIVISION
INTERNAL CORRESPONDENCE

February 16, 1979

V. L. Turner, 9201-4, MS 001, Y-12 (4-2139)

Use of Trichloroethylene in MRDF-CPL Vapor Degreasers

Equipment specifications numbered YS-2999 and YS-3000 indicate that trichloroethylene is proposed as the operating fluid for the MRDF-CPL vapor degreasers. A letter dated March 22, 1977, to W. W. Thompson from R. D. Gilmore on the subject of "Use of Trichloroethylene in CPDF" addresses the proposed use of trichloroethylene in centrifuge facilities. As mentioned in the letter, animal studies conducted by the National Cancer Institute have implicated trichloroethylene as a potential carcinogen. OSHA, EPA, NIOSH, and ERDA have always supported stringent occupational and environmental control measures for suspected carcinogenic agents and no available information would indicate that trichloroethylene could be exempted from such regulation.

The use of trichloroethylene in any proposed system requires a thorough review of alternate materials to demonstrate that trichloroethylene is the only technically feasible substance with the required characteristics and properties for the proposed use. Documentation of this review must support the exclusive use of trichloroethylene in this facility. Based on current toxicological information, Freon R type solvents would be better agents of choice from industrial hygiene and environmental management standpoints. If a feasible alternative can not be substituted for trichloroethylene, extensive control measures will be necessary to control potential employee exposures. Should you have any questions or comments regarding environmental management, contact T. E. Bard (4-8223) and for industrial hygiene concerns, contact D. T. Duncan (4-8623).

APPROVED BY
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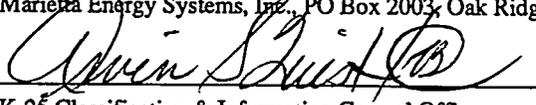
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Title/Subject Letter, D Milan to JE Vasgaard,

USE OF TRICHLOROETHYLENE AT ORGDP

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J. E. Vasgaard, K-1550-F, MS 229


K-25 Classification & Information Control Officer Date 7/1/80

Use of Trichloroethylene at ORGDP

Trichloroethylene is used as a coolant in many systems at ORGDP, including the operating centrifuge facilities of Separation Systems Development. Letters dated February 16, 1979 and March 1977 by D. T. Duncan and R. D. Gilmore of the Industrial Hygiene Department, respectively, addressed the use of trichloroethylene in proposed centrifuge facilities. These correspondence refer to studies undertaken by the National Cancer Institute (NCI) implicating trichloroethylene as a potential carcinogen. Each letter advises the use of a substitute for trichloroethylene unless it can be demonstrated that trichloroethylene is the only "technically feasible substance with the required characteristics and properties for the proposed use."

The Industrial Hygiene Department was recently requested to evaluate the usage of trichloroethylene as a coolant in the K-1413 desublimator test facility. Upon reviewing the system at K-1413, a recommendation was made to substitute the combine coolant C-816/B-437 for trichloroethylene to provide an added degree of employee protection and to cooperate with efforts within the Union Carbide Corporation to control the use of potential carcinogenic chemicals. Although the C-816/B-437 is being substituted in this particular operation, it should not be regarded as a remedy for all existing or proposed facilities requiring the use of similar coolants. Substantial quantities of C-816/B-437 are stored within the K-25 complex but the chemical is no longer commercially available. Efforts should be initiated to locate a suitable substitute for trichloroethylene other than C-816/B-437 for current or proposed used in K-25 and GCEP.

The Industrial Hygiene Department will evaluate existing usage of trichloroethylene to determine what restrictions, substitutions or workplace practices may be necessary to assure that potential employee exposures are minimized.

Should you have any further questions regarding the usage of trichloroethylene, please contact me directly.

ORIGINATED BY

D. Milan, K-303-7, MS 328 (4-8621)

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cc: T. G. Fortney, K-1003, MS 422
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File-DM