

# JACOBS ENGINEERING GROUP INC.

M60050.000823  
MCAS EL TORO  
SSIC # 5090.3

## MEMORANDUM

**TO:** Andy Piszkin - Code 1812.AP  
**FROM:** Chuck Elliott - CH2M HILL/SAC  
John Dolegowski - CH2M HILL/SCO  
**SUBJECT:** MCAS El Toro RI/FS  
Establishment of ~~Cutpoints~~ During  
the Data Quality Objectives Process  
CLE-C01-01F145-G2-0165

**DATE:** 6 August 1993

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Step five of the Data Quality Objectives (DQO) process provides for the development of a decision rule. This decision rule is defined as a statement that specifies how environmental data will be summarized and used to make a decision, including quantitative criteria for determining what action to take. To this point in the DQO process at MCAS El Toro, it has been assumed that "cutpoints" would be developed during Step Five. In other words, a discrete value would be assigned to each chemical proposed for investigation during Phase II of the Remedial Investigation (RI) at MCAS El Toro. DQO participants would agree on an acceptable probability of making an incorrect decision and assign an uncertainty range around the cutpoint. If the mean of the Phase II sample data at a stratum exceeded the cutpoint minus its range of uncertainty, then participants would agree in advance that the stratum would be remediated for that chemical contaminant.

There are several problems with this approach. First, EPA requires CERCLA sites to be evaluated on the basis of risk. The risk posed to human health or the environment by contaminants at each site will be evaluated during the baseline risk assessment (BRA). The BRA will consider the cumulative risk posed by the suite of contaminants that are present above background, and not by the individual contaminants separately. It is conceivable that the contaminants that are present may not exceed their cutpoints individually, yet collectively pose a level of risk unacceptable per EPA guidance.

Second, when assigning cutpoints the DQO team is supposed to consider Best Available Technology (BAT) and Best Practicable Technology (BPT) for the remediation of soil. However, a large number of options are available to remediate contaminants in soil. The effectiveness (and thus "cleanup levels") of these options will vary depending on soil characteristics, presence of other contaminants, availability of funds, availability of time, and other variables. Even under optimum conditions, cleanup may only be estimated to a range of concentration levels. Assigning meaningful cleanup levels to contaminants in soil is nearly impossible without treatability studies performed on actual soil samples.

Third, many factors will be considered during the selection of a remedial alternative, including the types and concentrations of contaminants that are present, risk to public health and the environment, ultimate land use, and cost. These factors are too complex

to include in the formulation of a discrete cutpoint. The FS is designed to address this problem by formulating several remedial alternatives. These alternatives may range from taking no action at all to complete removal of the contaminated soil, with various in-situ remedial alternatives between these two extremes.

Because of these problems, it is proposed that individual cutpoints not be established for the chemicals that will be investigated in soils and sediments during Phase II. Instead, it is proposed that the mechanisms established in Superfund - namely, the baseline risk assessment and the feasibility study - be employed to evaluate the remediation of sites at MCAS El Toro.

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