

GEOTECHNICAL ENGINEERS INC.

IDIT MAIN STREET - WINCHESTER - MASSACHUSETTS DISSC | 617 729-1625



January 28, 1982 Project 81907 File 2.0 Ref: 81907-2

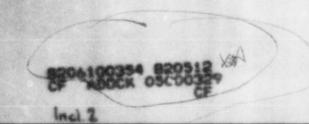
Mr. Joseph Eane Project Officer U. S. Regulatory Commission Division of Engineering, R/S P-214 Washington, D.C. 20555

Subject: Information Desired Regarding Spring Stiffness
Computations
Follow-Up To Audit of January 18, 19, 1982
Becatel Offices, Ann Arbor, MI
Midland Plant Underpinning
Contract No. NPC-03-82-092

Bear Mr. Mane:

Based on our telephone discussion with Mr. Hari Singh on January 27, 1982 and on my review of the calculations by Bechtel of the Auxiliary Building Spring Stiffnesses (DQ-30.1(Q) and DQ-38.2 (Q) dated 12/08/81 and 12/15/81, respectively), the following questions arise:

- (1) Now were these spring stiffnesses used with respect to the underlinning that is being audited? Describe the major steps in the procedure used to analyze the stresses and deformations within the structure during and after completion of underpinning.
- (2) On page 7/17 of DQ-30.1(Q) there are moduli of elasticity shown.





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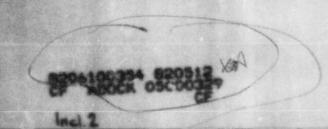
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- (2) On page 7/17 of DQ-30.1(Q) there are moduli of elasticity shown.



Mr. Joseph Kane January 28, 1982 Ref: 81907-2 (a) Show the source of these moduli. Provide the Poisson's ratios assumed in the elastic analysis and the basis for selection. (c) Indicate the technique used to analyze the elastic stresses. (d) Show whether the calculated spring constants would vary over the area of the concrete mats. (e) Justify the use of the center point for calculating the spring constant. Sincerely yours, GEOTECHNICAL ENGINEERS INC. Steve J. Poulos Principal SGP:ms GLOTAL HNICAL ENGINEERS IN