



**Commonwealth Edison**

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August 10, 1984

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Byron Generating Station Units 1 and 2  
Essential Service Water Pipeline  
NRC Docket Nos. 50-454 and 50-455

References (a): June 1, 1982, letter from B. J.  
Youngblood to L. O. DelGeorge.

(b): October 27, 1982, letter from T. R.  
Tramm to H. R. Denton.

Dear Mr. Denton:

This letter provides supplemental information regarding the soil supporting the Byron essential service water pipeline. We understand that this information will permit NRC closure of SER Outstanding Item 1.

Enclosed is additional documentation concerning the preliminary site work fill placement and composition in area of concern number 12. The photographs described have already been provided to the NRC reviewer, John Chen.

Please direct any further questions you may have regarding this matter to this office.

One signed original and fifteen copies of this letter and the enclosure are provided for NRC review.

Very truly yours,

T. R. Tramm  
Nuclear Licensing Administrator

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Additional Documentation Concerning  
Placement of Preliminary Site Work Fill in  
Essential Service Water Pipeline Area of Concern No. 12

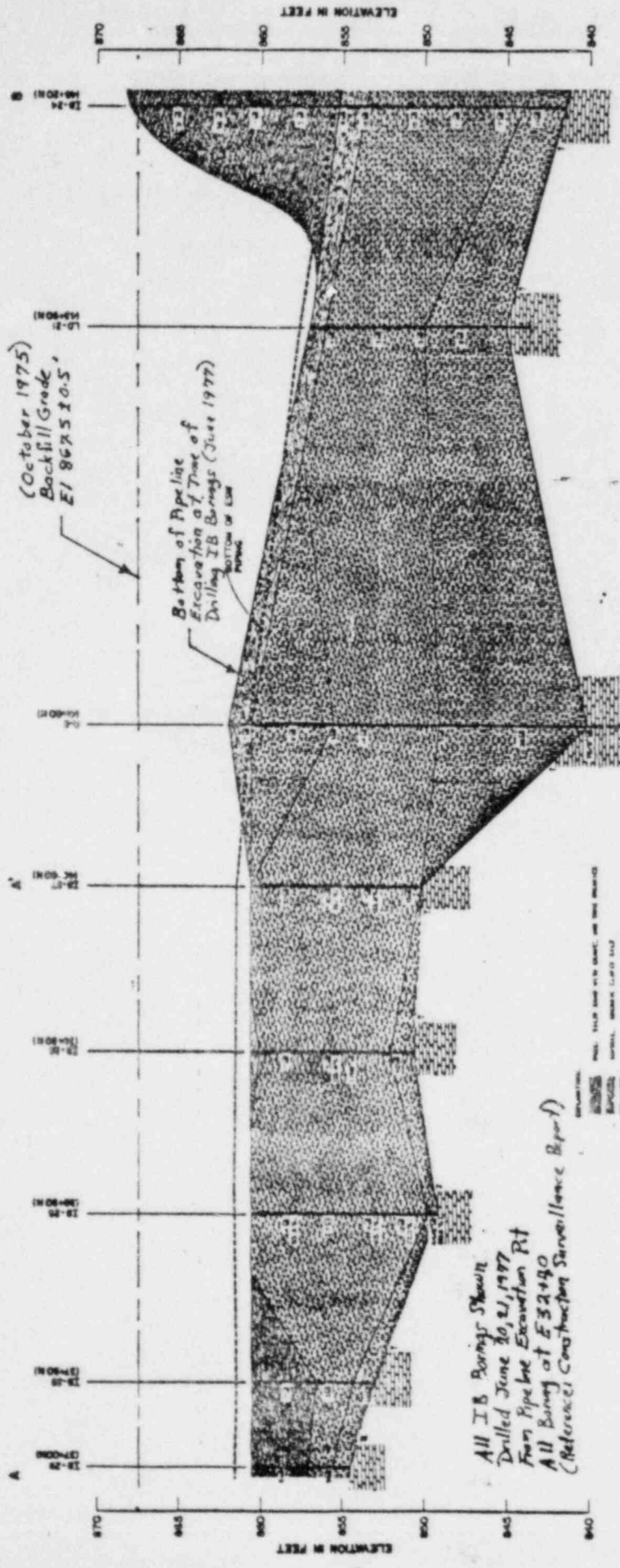
The preliminary site work fill placement and compaction in Area of Concern No. 12 occurred between May 1975 and October 1975. H. H. Holmes Testing Laboratories provided quality control for the earthwork fill. The ESW pipeline in Area 12 is located approximately at 32+40E between 37+00N and 45+00N. Figure 1 shows the subsurface profile at Area 12 including the earthwork fill.

Earthwork in the vicinity of the switchyard and Area 12 was compacted to minimum 95% Modified Proctor. Typical field density test reports identifying date, location, elevation, and percent compaction are included in Attachment A (QC Report Nos. 20, 37, 81, and 97). These reports confirm placement and compaction of preliminary site fill in Area 12 to approximate elevation 867.0 ft. MSL between May and August 1975. Some additional fill and grading occurred after August.

The ESW pipeline in Area 12 was installed in the fall of 1977 and spring of 1978 approximately 2 years or more after the preliminary site fill was placed.

Attachment B presents two aerial photographs numbered P8/1/75C1 and P7/12/76D1. These photographs show the site construction on August 1, 1975 and July 12, 1976. Area of Concern No. 12 has been identified on the photographs. Note that the July photographs shows all preliminary site fill complete, railroad tracks installed and laydown areas in use.

The above stated documentation supplants the information on Area of Concern No. 12 presented in Dames & Moore's letter dated September 15, 1983, and transmitted to the NRC on a later date.



(October 1975)  
Backfill Grade  
E1 8625 ± 0.5

Bottom of Pipe Line  
Excavation at Time of  
Drilling I.B. Borings (June 1977)

All I.B. Borings Shown  
Drilled June 20, 21, 1977  
From Pipe Line Excavation Pit  
At Boring at E 32+40  
(Reference Construction Surveillance Report)

SYMBOLS:  
PIPE: 1/2" DIA. PIPE WITH SAND, AND SAND GRAVEL  
GRAVEL: SAND GRAVEL  
SAND: SAND  
CLAY: CLAY  
PIPE LINE: PIPE LINE  
BOTTOM OF PIPE LINE: BOTTOM OF PIPE LINE  
BORING: BORING

NOTES:  
1. THIS PROFILE IS A GENERALIZATION OF THE DATA OBTAINED FROM THE BORINGS SHOWN.  
2. THE PROFILE IS NOT TO BE USED FOR DESIGN PURPOSES.  
3. THE PROFILE IS NOT TO BE USED FOR FOUNDATION DESIGN PURPOSES.  
4. THE PROFILE IS NOT TO BE USED FOR EARTH RETENTION DESIGN PURPOSES.  
5. THE PROFILE IS NOT TO BE USED FOR OTHER DESIGN PURPOSES.

FIGURE I  
AREA OF CONCERN NO. 12

GENERALIZED SUBSURFACE PROFILE

ATTACHMENT A  
TYPICAL QUALITY CONTROL TEST REPORTS  
PRELIMINARY SITE FILL