Docket File

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

SEP 13 1973

Docket Nos. 50-438
and 50-439

Tennessee Valley Authority
ATTN: Mr. J. E. Watson
Manager of Power
818 Power Building
Chattanooga, Tennessee 37401

Gentlemen:

On August 21, 1973, members of the AEC's environmental review staff and its consultants visited the area adjacent to the site of your proposed Bellefonte Nuclear Plant in Jackson County, Alabama. Meetings were then held with TVA at Chattanooga, Tennessee on August 21 and 22, 1973, to discuss issues generated by the site visit as well as those transmitted to you in my letter of August 10, 1973.

As a result of the site visit and subsequent discussions, we require additional information in order that our review of your application can continue. The information requested is described in the enclosure to this letter and pertains to the different sections of the TVA draft environmental statement (TVA DES) and the Amendment #1 supplement (Supplement) thereto.

To avoid delay in our review, the information identified in the enclosure must be submitted by October 5, 1973. If you cannot submit the additional information by this date, please inform us within seven (7) days after receipt of this letter of an alternate date for submittal so that we may reschedule our review accordingly.

Your reply should consist of three signed originals and 297 additional copies in the form of a sequentially numbered supplement to your draft statement. Please forward 200 of these copies and retain the remaining 100 for future use.

LB

If you have any questions concerning the requested information, please contact Mr. G. L. Dittman, Environmental Project Manager, at (301) 973-7263.

Sincerely,

Original signed by
Wm. H. Regan, Jr.

Wm. H. Regan, Jr., Chief
Environmental Projects Branch 4
Directorate of Licensing

Enclosure:
Request for Additional Information

cc w/encl.: R. H. Marquis, General Counsel
629 New Sprankle Blvd.
Knoxville, Tennessee 37902

Mr. W. E. Garner, Attorney and Counsel for the Petitioners;
W. E. Garner, M. T. H. Garner, M. T. Garner, W. T. Garner,
J. F. Hurt, H. T. Darwin, V. N. Darwin, W. R. Nolen and
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DISTRIBUTION

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SURNAME	GLDittman:pc	WHRegan				
DATE	9/13/73	9/13/73				

ENCLOSURE

REQUEST FOR ADDITIONAL INFORMATION
TENNESSEE VALLEY AUTHORITY
BELLEFONTE NUCLEAR PLANT, UNITS 1 AND 2
DOCKET NOS. 50-438 AND 50-439

METEOROLOGY

1. Provide the heights and instrument specifications of the additional sensors (wind speed, wind direction, temperature, and dewpoint) to be added to the temporary offsite metorological facility "in early 1973" (as discussed on page 1.2-7) and indicate the date of installation of these additional instruments.

2. Since cooling towers are proposed for this site, the meteorological facilities must include measurements of wind speed and direction, atmospheric moisture, and atmospheric stability at a height indicative of the effluent release level. Discuss the provisions for meteorological instrumentation needed to comply with the above.

3. Since "cooling tower manufacturers have recently conducted extensive research on drift from cooling towers," (Response to Supplement, Comment 13) verify the statement that, "Essentially all of the drift is expected to fall within 1000 yards of the tower," (page 2.5-3 of the TVA DES).

4. Identify the "periods of high evaporation" referred to on page 2.6-7, and indicate how often these conditions are to be expected or will be exceeded.

5. Visible vapor plume length may not be as indicative of the potential for fogging and icing conditions as plume width or vertical spread. Discuss why TVA has examined only plume length, and provide the rationale as to why plume length is considered to be the best method available for evaluating the potential for fogging and icing due to the operation of natural draft cooling towers.

RADIOLOGICAL DOSE ASSESSMENT

6. Identify parks and recreation areas within two miles of the plant. Provide estimated annual usage at each park or recreation area. Specifically, identify the location of the recreation developments on Guntersville Reservoir discussed on page 1.2-15.

7. What is the estimated population of the Monsanto plant discussed in Table 1.2-16 on page 1.2-45?

8. Is water from Guntersville Reservoir and/or ground water adjacent to the reservoir used for irrigation purposes?

9. Provide an estimate of the annual number of visitors and the visit duration to the visitor center.

10. Provide the locations of gardens and farms within 2 miles of the site where crops or vegetables are grown in order to identify the vegetation exposure pathways.

11. Provide the average width of the shoreline at Scottsboro Muncipal Park.

12. Provide a map, such as Figure A-3, with the locations of the reactor building, visitor's center and site boundary clearly indicated. This map should also indicate the location of nearby residences.

13. Provide estimates of the 1980 population that will utilize the drinking water supply intakes listed in Table H-1.

14. For the release of radioactive liquids to the Tennessee River:

    a. Provide an evaluation of phasing the releases to the cooling tower blowdown discharge so that they can coincide with the downriver surge of water periodically released from the upstream dam.

    b. What is the estimated dilution during back flow conditions for continuous release?

    c. Indicate how the assumptions made for dilution in the river are affected by periodic water releases from the upstream and downstream dams.

    d. Indicate how the water flow described above affects sedimentation.

15. After the fifth year of operation of the Bellefonte Nuclear Plant, TVA proposes to truck approximately 50,000 gallons per year of low activity waste water to an offsite disposal facility for tritium control. This proposal is not acceptable to the AEC since current state-of-the-art equipment can process such waste to preclude the need to transport offsite. Therefore, TVA must provide an alternate disposal method for AEC review.

16. Identify the location of the reactor building vent on Figure 9.4-3 of the PSAR.

17. Is the reactor building vent separate from the station vents?

18. Identify the location of the air ejector exhaust vent on Figure 10.4-1 of the PSAR.

19. The preoperational radiological environmental program shown in Table 11.6-1 of the PSAR should include specific analysis for I-131 in milk.

COOLING WATER INTAKE

20. The problem of alternative intake designs at the proposed site and alternate intake sites is the principal ecological inadequacy of this project. Apparently, no attempt has been made to achieve a balance between minimized aquatic impact and maximized safety considerations. The staff believes that shoreline concentration of larval fish is very likely and may be as much as 3 orders of magnitude greater than in mid-channel. The proportionate flow of ichthyoplankton into the station will be much greater than 0.4 percent which TVA states is the proportionate amount of the average annual flow past the proposed site that is drawn into the intakes pumps. The staff also contends that small fish are likely to be attracted to a region of lower flow (e.g., the proposed intake embayment). Therefore, TVA is requested to provide a cost benefit analysis (including absolute rather than incremental costs) for alternate intake designs (such as louvers, bypass devices, bubble screens, traveling band screens, skimmer walls, etcetera) and alternate intake locations (such as at the reservoir shoreline, a deep-water submerged intake, etcetera). The analysis should address the necessity for an 800 foot intake canal and those safety considerations that will preclude any of the alternatives.

21. What are TVA's plans and schedule for hydraulic modelling of Guntersville Lake including the Bellefonte intake?

22. Provide information on fish impingement or macrophyte debris at the Scottsboro pumping stations and at the Widows Creek and Guntersville Dam intakes.

LAND USE

23. Provide a discussion of the amount of industrial and residential development compatible with recreational and wildlife use of the Bellefonte peninsula and Guntersville Reservoir adjacent area.

The following considerations are pertinent to this issue:

- What parks are planned or needed?
- What is planned for the future use of the surrounding shoreline?
- Optimal surrounding land uses for wildlife management areas.
- Possible expansion of commercial or sport fisheries.
- Quantitative information on need for public access to embayments and other shoreline areas in Guntersville Reservoir.

On the above basis, justify the proposed development of a recreational area on the Bellefonte site and the proposed public access to it via the Town Creek causeway. Compare the costs and benefits of the presently planned access road with an alternative route approaching the plant from the south or west.

CONSTRUCTION

24. Provide estimates of the extent of erosion and siltation from various construction sources (e.g., graded areas, shoreline work, intake, discharge, and dock). Specify dredging procedures and equipment to be used and define "excessive siltation" (page 2.7-7). Estimate the extent and frequency of maintenance dredging of the intake channel.

25. Describe the impacts due to the construction of the railroad spur and give consideration of alternate, local routes.

26. Detail changes in shoreline and offshore bottom contours due to construction of the intake canal.

27. Provide quantitative information on flow restrictions in Town Creek embayment due to the proposed causeway and consequent changes in aquatic habitats.

PLANT DESIGN AND DESIGN ALTERNATIVES

28. Describe the plans for the Visitor's Center (overlook) including planned activities.

29. Compare the recreational values (costs and benefits) of a reconstituted building (or buildings) at the old Bellefonte town site versus the recreational value of the area on the northeast portion of the proposed site. Include considerations of access and possible relocation of an old Bellefonte building at the Visitor's Center. For further information, see letter on the old Bellefonte Buildings dated August 6, 1971, to Mr. A. J. Gray, Chief of Regional Planning Staff of TVA, from W. Warner Floyd of the Alabama Historical Commission.

30. Does TVA foresee additional generating units on the Bellefonte site?

31. What would be the actual land requirements (not the increased amount of purchased land) which would be necessary for each of the alternative cooling systems analyzed in Section 2.6?

THERMAL DISCHARGE

32. Provide the values of the design parameters for the natural draft cooling towers that significantly influence the temperature and quantity of discharge water.

33. Provide locations and depths of the diffuser for alternative locations being considered.

34. Discuss the design of the diffuser for each of the locations considered. This should include important parameters, such as number of diffuser pipes, number of nozzles on each pipe, nozzle diameter, angle of discharge, and discharge velocity.

35. Discuss the jet model used to estimate the extent of the thermal plume and include all pertinent parameters assumed, such as initial ΔT, initial jet velocity, discharge angle, length of zone of flow establishment, ambient stratification, ambient temperatures, initial Froude number, and bottom effects. Include a discussion of any physical modelling that serves as a basis for the analytical model.

36. Provide the results of calculations made for the dilution of blowdown effluent and for the extent of the plume at the surface.

37. Discuss the method of analysis of surface plume between the $\Delta T = 5°F$ and $\Delta T = 1°F$ isotherms.

38. With regard to the response to Supplement, Unnumbered Comment 1:

    a. Define "extreme meteorological conditions."

    b. How frequently, especially in spring and early summer will these occur?

    c. Discuss the resultant temperature (surface and depth distribution) in local embayments.

CHEMICAL DISCHARGE AND WATER QUALITY

39. Is there experience to support a belief that acrolein will probably be lost by reaction with acrolein demand substances and by evaporation in the cooling tower before release in the blowdown?

40. What are the quantities of chemicals expected to be used in the cleaning of components, both before initial operation and periodically thereafter? (Give anticipated schedule.)

41. How much of these chemicals will be discharged to the environment and in what fashion?

42. If such chemicals are discharged, what will be the quantities of constituents expected to be dissolved in the cleaning and released in the discharge?

43. Will chlorine be used for defouling both the condenser and the cooling tower?

44. Assuming chlorine will be used for one or both of the above, the development of estimates of releases from the system will require recent data for ammonia nitrogen, chlorine demand, and pH. Provide values for ammonia nitrogen and chlorine demand.

45. Will acid be used for control of scaling?

46. Supplement, Comment 39. Are sanitary facilities at the Visitor's Center (overlook) provided by TVA? If so, provide details such as flow rate, chlorine levels and the capacity of temporary and permanent sewage treatment plants.

47. Supplement, Comment 10. Quarterly sampling is not adequate since it may not be frequent enough for good resolution of seasonal patterns. In addition, samples should be taken where fish, plankton, benthos, etc., studies are conducted.

    a. Provide a list of water quality variables to be measured and show location and withdrawal schedule of the associated water sample.

    b. Provide a contour map of the reservoir showing the bottom regions that will be exposed by drawdown and that are likely to come into contact with the plume under any conditions.

48. Discuss present flow and drawdown schedule for the reservoir and describe any changes that will occur when Bellefonte is in operation.

MONITORING AND IMPACTS ON BIOTA

Terrestrial (Supplement: Unnumbered Comments 5 and 15, Comment 60)

49. Details for the specific sampling programs to support the various aspects of the three chief null hypotheses should be presented concurrent with a rationalization for each one. In light of information gained at the site visit, the staff suggests that the terrestrial monitoring program requires modification to increase emphasis on the riparian habitat, particularly in the regions adjacent to the intake and discharge and around Town Creek which may be an important habitat for the prothonotary warbler and several species of herons.

Aquatic (Supplement: Unnumbered Comments 5, 6, 8, 10, 12, 14 and Comments 10, 29)

50. Give the rationalization for the aquatic monitoring program. To the extent practical, define values of the measured parameters which will result in the rejection of the null hypothesis. In light of recent information concerning the projected behavior of the thermal plume and the potential extent of construction impacts, the staff suggests that the aquatic monitoring program be modified to place more emphasis on the aquatic overbank area from Town Creek to downstream of the discharge. Sampling stations should be established for benthos, macrophytes, fish, etc. for monitoring from preconstruction through operation.

51. Provide a map of sampling areas (e.g., location of 1/4 square mile quadrats).

52. Fish (Supplement: Unnumbered Comments 6, 14 and Comments 13, 30, 58)

    a. What species migrate "above the plant" to spawn, and where exactly do they spawn?

    b. Provide some quantitative estimate of the role of embayments for benthic production and fish spawning nursery grounds, i.e., what is the relative importance of Town and Mud Creek to the whole reservoir?

    c. Provide details of larval fish meter net sampling in the intake channel.

    d. Concentration of fish in the mixing zone may occur, especially in cooler water. Biocides in the discharge water could give such fish occasional significant doses. This situation should be subject to monitoring.

    e. Provide details of modifications to the sampling procedures for larval fish to cope with milfoil growths.

    f. Discuss commercial fishing in the reservoir in the vicinity of the plant.

53. Benthos (Supplement: Unnumbered Comments 8, 10, 12 and Comments 10, 58)

    a. What is the frequency of benthos sampling?

    b. What is the variability of substrate type; will each type be sampled in each sampling time?

    c. The temporal distributions of artificial substrates is not clear. Will three samples be placed out at each sampling time and collected at the subsequent sampling time?

d. Provide the depths of all benthic samples.

e. Provide benthos and macrophyte data from the several TVA studies on industrial sites in Guntersville Reservoir.

f. Discuss sampling procedures in the main channel and in the shallow regions containing macrophytes.

54. Macrophytes

a. Will any changes in the milfoil control program be necessary because of the Bellefonte plant?

b. Will any milfoil treatment be carried out in Town Creek or the overbank areas near the site?

c. Macrophyte monitoring should not be dismissed because of the control program, but should accommodate it. Provide more detail of distribution and abundance of macrophyte species.

d. Provide the results of any TVA studies that have been made on aquatic vegetation including the effects of herbicides.

55. Plankton (Supplement: Unnumbered Comment 8)

a. What frequency of samples is proposed? (Quarterly sampling is not adequate since it would not give good resolution of seasonal trends.)

b. When will the plankton sampling program start?

56. Transmission Lines (Supplement: Comments 18, 19 and 20)

In view of the USDA-USDI environmental guidelines for electric transmission systems, the staff needs more information regarding the costs and benefits of shear-clearing and "grassing," shear-clearing and broadcast herbicide maintenance in "remote" and "inaccessible" areas and selective clearing with hand cutting and/or selective herbicide maintenance.

a. Discuss the alternates of stump removal without building an extensive system of access roads versus herbicide treatment of stumps and construction of a carefully planned system of access roads.

b. Provide the criteria for determining what is "remote" and "inaccessible." (The staff noted fairly extensive broadcast use of herbicides in view of major U.S. and interstate highways.)

c. In view of the fact that sometimes over a year passes between initial clearing and stump removal to the final seeding, provide a discussion of erosion, leaching of nutrients and steam siltation in areas of rock-outcropping and slopes where the shear-clearing and "grassing" method is used (i.e., stump removal-bulldozing-discing-seeding-mowing of the entire width of the right-of-way under the towers).

d. Are the usual erosion control measures (such as construction of diversion swales, siltation basins and limitation of slope) used on an area to be seeded as well as on access roads?

e. Is screening attempted only at major road crossings? If so, why?

f. What controls does TVA have over contractors who fail to leave planned screening, destroy screening by taking an access road straight through at right angles or by spraying with herbicides?

g. What controls does TVA have over accidental spraying of herbicides too close to a waterway or on lands adjacent to rights-of-way?

h. Is it permanent streams only where herbicidal spraying is not permitted within 100 feet? (The staff noted intermittent streams where vegetation had been cleared either mechanically or with herbicide right down to the edge.)

i. After construction is complete and seeding accomplished, does TVA patrol the line for signs of erosion or failure of the seed to take? What corrective measures are taken when failures are noted?

j. Has TVA studied the rate of re-invasion of undesirable plant species on shear-cleared (grassed - mowed and broadcast herbicide) versus selectively cleared (mechanical and selective herbicide) rights-of-way?

k. Has TVA studied wildlife use and benefits to such wildlife of a shear-cleared, grassed, mowed right-of-way versus a selectively cleared, selective herbicide maintained right-of-way? (The Kentucky 31 fescue which TVA primarily plants is considered to be "not too platable" by the U.S. Department of Agriculture, Agricultural Research Service, "Grass Varieties in the United States," Agricultural Handbook No. 170, p. 63.)

l. What "wildlife food" does TVA plant and what percentage of all planting does this normally entail?

m. Provide the costs of shear clearing, selective clearing, stump removal, and aerial and selective application of herbicides. Give the range and average costs on a per mile of 500 kV line basis, or relate all to a particular stretch of right-of-way.

n. Provide the costs of open burning, controlled burning and chipping of slash for a given stretch of right-of-way in terms of both shear clearing and selective clearing.

o. Where and how often is windrowing of slash used?

p. Relate transmission line planning for Bellefonte with transmission line planning for the overall TVA system. Include information on operating plants and describe the development of the transmission system in TVA Area No. 4. Any use prior to plant commissioning (other than for Bellefonte construction) of the proposed transmission lines should be stated.

q. Provide a cost-benefit analysis of a submarine river crossing versus the proposed aboveground crossing for the Tennessee River and Town Creek.

NEED FOR POWER

57. It is stated in the Draft Environmental Statement on page 1.3-4 that TVA's planning criteria requires maintaining a desired reserve margin within a reliability risk level of one day in ten years. What is this desired reserve margin in terms of percent of peak load?

58. Expand the table at the top of page 1.3-4 to provide the power supply projection for the 1973-1979 period.

59. During the 1960-1972 period, the peak load on the TVA system grew at only 4.7 percent per year. The projected loads shown in the Environmental Statement indicate a growth of approximately 7.1 percent. Provide an explanation for the increased growth rate in the 1970's.

60. Provide historical data for each year since 1960 on TVA's peak loads, firm purchases, firm sales, diversity interchange agreements, system capability (total capacity of TVA power plants), reserve margins, and energy loads.

61. Provide projected data from 1973 to 1982 on firm purchases and sales, and energy loads. Also provide a typical annual load duration curve of the TVA system.

62. The peak load of the TVA system did not increase between 1970 and 1972. Even by taking into consideration the AEC demand, the peak load still remained flat. Please provide an explanation for the relatively low peak loads in 1971 and 1972. The TVA peak loads less the AEC demand between 1970 and 1972 were 15,457 MW, 15,610 MW, and 15,324 MW, respectively.

63. If protracted litigation delays the licensing process, describe TVA's contingency plans to provide the required electrical generating capacity in the 1980 time frame.

ALTERNATIVE ENERGY SOURCES AND SITES

64. Why do the various alternative sites discussed in Section 4.2 require different land areas? For example, Site C would require only 700 acres while the Bellefonte site requires 1,500 acres.

65. Provide the estimated land requirement if a nuclear plant were to be located at Site F.

66. In the site alternative discussion in Section 4.2, area 2 was eliminated because studies of specific sites had not progressed far enough (page 4.2-5). Since this area shows the greatest need for additional generating capacity (Figure 4.2-2), why was this area not given more serious consideration in TVA siting studies?

67. Why was the Hartsville site not listed as an alternative to the Bellefonte site?

68. Section 4.1 did not consider geothermal energy as an alternative method of power generation. What is the potential for geothermal power in the TVA service area?

69. Provide a more detailed discussion than that given on page 4.1-5 on the use of a coal-fired plant as an alternative to the Bellefonte Nuclear Station. This comparison should include two types of coal-fired plants; one which would utilize low sulfur coal and a second which would use high sulfur coal with stack gas cleaning. Include estimated economic data of these two options such as coal price (and source), capital and operating costs of sulfur removal equipment, etc. Also include environmental impacts of the two alternatives such as pollutant emissions, land requirements, etc.

70. Provide a more detailed cost estimate of plant investment costs shown on pages 4.1-4 and 4.1-5 for the nuclear, coal, and oil-fired plants.

    Categorize costs into direct costs, such as land and land rights, structures and improvements, turbine-generator equipment, reactor plant equipment or boiler plant equipment, etc., and indirect costs such as interest during construction, escalation, etc.

71. The generating costs shown on page 8.2-1 do not agree with the costs presented on pages 4.1-4 and 4.1-5. For example, the generating cost for a nuclear plant is shown to be 1.9 mills/kwh on page 4.1-4 while it is 2.2 mills/kwh on page 8.2-1. Also the $580 million capital expenditure for the total facility discussed on page 8.2-1 does not equate to $261/kw as shown on page 4.1-4. Please reconcile these differences.

SOCIAL AND ECONOMIC IMPACTS

72. Provide the estimated space requirements in the Scottsboro-Hollywood area for accommodation of student influx at the start of and during the peak of construction of the Bellefonte Plant taking into account the requirements for 1,300 additional permanent workers at the Revere Copper and Brass Corporation Plant and the Goodyear Tire and Rubber Plant.

73. What is the capacity and present usage of the Scottsboro city water system and sewage treatment plants?

74. What will be the capacity and usage of the Scottsboro water system and treatment plants at the start and during the peak of construction of the Bellefonte Plant?

75. Have consultations been held with Scottsboro and county health officials to determine if the local emergency treatment facilities and staff will be adequate for the 2,300 construction workers and increased population during construction of the plant?

76. In addition to the written description of the plant given in section 1.1, provide an aerial perspective rendering or drawing which shows the plant as it relates to the Town Creek embayment, the causeway, the site and the reservoir when viewed from the northwest.

77. Identify locations where a view of the elements of the plant could be important. Examples of such locations could include parks, public gathering places, Town Creek embayment, Guntersville Reservoir, the on-site recreational area, residential areas, and streets with a view toward the plant. The locations should be displayed on a map and, if a significant visual impact would be created at that location, sketches or line drawings should be provided to a constant scale, indicating the profiles of the visible elements of the plants, the ridge beyond and major foreground elements such as forests.

78. Provide an assessment of the present capacity and traffic on the major routes to the site and estimate the impact of the additional construction worker traffic on volume of traffic, increased accidents, and increased requirements for police officers. Take into consideration that the majority of the workers will be on the first shift.

79. What are the projected sound levels on terms of DB(A) at nearby residences for each shift during construction?

80. Concerning the TVA response to Supplement, Comment 44, are the values provided for day and night background sound levels reversed.

81. Since TVA does not make direct payments in lieu of taxes to the local area as would be required of a private firm, what plans does TVA have to defray some of the local social expenses caused by the peak construction demands placed on public schools, roads, city water and sewage systems, police and fire protection, and other public services during the plant construction period?

82. If Federal aid is available how much assistance can be expected per capita (or other basis) of new construction worker?

83. Will there be sufficient surplus employable manpower in the local labor pool to meet the labor requirements for the construction of the Bellefonte Nuclear Plant in addition to the industrual developments described on page A-2?

84. Would the experience gained from Brown's Ferry and other TVA nuclear plants regarding the influx of construction workers be applicable to the Bellefonte plant with respect to the local industrial expansion?

85. If fewer potential construction workers are available locally than suggested by the Brown's Ferry experience, what would be the impact on housing, schools, roads, and other services if 40-45 percent of the construction workforce moved into the area rather than the 25 to 30 percent estimate in the TVA DES?

86. What are current land market values for relevant land uses along the transmission route and for different land uses in the vicinity of the plant site?

87. What potential research benefits will accrue through construction and operation of the proposed plant? Such benefits may stem from cooperative agreements and experiments with universities, industry, other Federal agencies or may be independently conducted by TVA.

88. Direct expenditures at the Bellefonte site will have an indirect impact on personal income and economic output in Jackson County, which may be reflected in increased property tax receipts, sales tax, or income. Provide estimates of local multipliers (local income multiplier and local output multiplier) in order to estimate these indirect interdependencies specifying methodology and assumptions in deriving these values.

89. Identify any input-output studies which calculated these multipliers for Jackson County or a similar region of Alabama.

MISCELLANEOUS

90. The TVA consultant, C. B. Oakley, in his survey of the Bellefonte site concluded that an extensive investigation of 1 Ja 300 site should yield important archaeological data. Provide TVA's plans to ensure that this site will either be protected or thoroughly explored

prior to construction activities near it. What procedure will TVA follow in the event that archaeological deposits are uncovered during the construction of the plant?