TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

1630 Chestnut Street Tower II

October 24, 1985

Director of Licensing
Attention: Mr. Hugh L. Thompson, Jr.
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Thompson:

In the Matter of the	)	Docket Nos. STN 50-518
Tennessee Valley Authority	)	STN 50-520
		STN 50-566
		STN 50-567

On August 29, 1984, Hartsville Plant A and Yellow Creek Nuclear Plant were officially cancelled by TVA. As a result of that decision, enclosed are six copies of TVA's proposed cancellation plans for each of these two plants. We hereby request that you withdraw our construction permits, Nos. CPR-150, -152, -172, and -173.

If you have any questions, please get in touch with Jim Domer at FTS 858-2778.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

J. W. Hufham, Manager
Licensing and Risk Protection

Subscribed and sworn to before
me this 24th day of October 1985.

Paulette H. White
Notary Public
My Commission Expires 8-24-88

Enclosures

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TENNESSEE VALLEY AUTHORITY

TVA CANCELLATION OF THE HARTSVILLE NUCLEAR PLANT A

Docket Nos. STN 50-518
STN 50-520

July 1985

HARTSVILLE NUCLEAR PLANT A

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1.0 Introduction

On May 5, 1983, TVA submitted "Details of Deferral Plans for Hartsville Nuclear Plant A." On August 29, 1984, the Tennessee Valley Authority cancelled the Hartsville Nuclear Plant A. Section 2.0 provides a summary of those activities TVA will conduct to stabilize the site and reduce any future environmental impacts.

Several activities associated with the Hartsville Nuclear Plant A are conducted under the permits issued by other regulatory agencies. Examples of permits within this category include: NPDES permits, Section 404 and Section 10 permits issued by the Corps of Engineers, air quality permits issued by the State, and FAA permits issued by the Federal Aviation Administration. TVA is in the process of discussing with these regulatory agencies the need to retain, modify, and/or renew those aspects of the permits that relate to the cancelled nuclear units. Thus, discussions of these activities are not addressed here except where they have been specifically identified in the construction permit.

2.0 Site Stabilization

The following information describes the stabilization plans for the 1940-acre site of the cancelled Hartsville Nuclear Plant (HTN). This total includes the 78 acres discussed in our March 1983 plan for the cancellation of Hartsville Nuclear Plant B. (Docket Nos. STN 50-519 and STN 50-521). The following information is based on stabilization of the total site which includes both plants A and B.

2.1 Disturbed Areas and Environmental Redressing

The disturbed areas, approximately 915 acres, at HTN include about 35 acres of denuded and spoils areas; 620 acres of graveled open storage areas, parking areas, and roadways; 155 acres of construction plant facilities; 30 acres of land committed to permanent features; and 75 acres of temporary holding ponds for plant runoff. The original land use of the site (before construction of HTN) is described in Section 2.2 of TVA's Environmental Report. Figure 1 shows the location of the above described areas within the site boundaries.

Miscellaneous equipment located in the switchyards will be removed. Remaining concrete foundations will be left in place. The switchyard area is graveled; therefore, no further stabilization is required. The construction holding ponds will be retained and used to collect site runoff for the duration of site stabilization. NPDES permit limitations for this discharge point will remain in effect during this period. Materials presently located in the open storage areas will be

removed from the site. Because these tracts are presently graveled, no further stabilization effort is planned for these areas. Current plans are to remove temporary construction buildings from the site within approximately three years except those for which a continued need for onsite materials storage is identified or alternate onsite uses for the structures are established. Appropriate access, utilities, and security will be provided for those buildings that remain onsite. Concrete slabs that remain after removal of the buildings will be left in place. Because roadways and parking areas are presently graveled, no additional stabilization is required on these areas. Demolition wastes will be disposed of onsite in accordance with state regulations for solid waste disposal. Toxic and hazardous materials will be disposed of in accordance with hazardous waste regulations.

Permanent plant structures will in general be left in place and in their present state of completion. Some modification to these structures may be required as plans for TVA's investment recovery program are developed. Establishment of positive site drainage may require modifications to some structures and backfill sufficient to partially or completely cover part of the structures. In any event, TVA will establish barriers to prevent unauthorized entry to any remaining structure. These barriers will remain in place until such time as a specific need for the land area or structures has been identified.

The area around the main plant partially completed structures, cooling tower area, switchyard areas, essential service water spray pond areas, and intake pump station will be graded to provide drainage from the area. Backfill will be placed in existing depressions, sumps, or excavations as required to provide drainage. Site drainage during the stabilization program will continue to be directed into the construction holding ponds. After grade is established, grass cover will be established in all areas except graveled surfaced areas, concrete slabs, and buildings.

The denuded and spoils areas will be recontoured as necessary for slope stability, covered with soil, and grass cover will be established.

At the time of the Hartsville Nuclear Plant A cancellation, 47 single-circuit, 500-kV transmission structures were erected along the Wilson-Hartsville 6-mile right-of-way. This composed approximately 76 percent of the tower erection work required for completion of the planned loop into the plant switchyard.

At the time of the plant A cancellation, 34 single-circuit, 500-kV transmission structures were erected on the 86-mile Franklin Hartsville right-of-way. These towers constitute approximately eight percent of the towers necessary to complete this circuit.

Similarly, on the Maury-Hartsville, 78-mile right-of-way, 45 single-circuit, 500-kV transmission towers were erected by the time the plant was cancelled. This constituted about 12 percent of the tower erection required for the circuit.

On the Hartsville-Bull Run segment of 500-kV transmission line easements, which was 16 miles as proposed, 49 single-circuit, 500-kV towers had been erected. Thus, about 62 percent of the tower requirements had been met.

TVA plans to leave the transmission towers standing in place until the towers are needed elsewhere on the system to replace or expand its transmission facilities. At that time, assuming there continues to be no need for the circuits as originally routed, the towers needed will be disassembled, removed, and the grillage foundation will be cut off below ground level. One line has some conductor strung, and it may be used as part of another line in the future if that is the best route for a future intrasystem connection. The ground surface disturbed during disassembly will be regraded, seeded or planted, and allowed to return to the use compatible with the surrounding land use. Surrounding land use is permanent pasture or idle land.

2.2 State of Completion at Cancellation

At discontinuation of construction activities (March 25, 1982), structural progress in plant A for unit 1 and common was 82 percent complete and unit 2 was 67 percent complete. Listed below is a percentage of structural concrete completion for the major features/structures.

	Feature	Percent Complete Unit 1	Unit 2	Common
1.	Auxiliary building	97	74	
2.	Fuel building	96	68	
3.	Reactor building	57	48	
4.	Turbine building	99	80	
5.	Cooling towers	99	3	
6.	Control building	98	65	
7.	CCW pump station			70
8.	ESW ponds and intake structure		94	
9.	Makeup water treatment plant			100
10.	Safety office and security building			25
11.	Radwaste building			92
12.	Central service facility		100	
13.	Switchyard (500 kV)			94
14.	Switchyard (161 kV)			100

Some equipment has been installed in the plant buildings. This equipment will be removed at TVA's option. Buried piping and electrical conduits, either permanent or temporary, will be abandoned.

2.3 Permanent Site Modifications

Permanent modifications to the site are the partially completed main plant structures. The concrete slabs which remain after removal of the construction buildings, the construction building retained for interim use, and the various graveled areas around the site will remain as a site modification for an indefinite period of time. TVA will barricade the main plant structures to prevent unauthorized entry. Main plant buildings will be drained for vector control. The construction holding ponds are a temporary preclusion to other land uses since the ponds will be retained and used to collect site runoff for the duration of site stabilization. A decision as to the future status of the holding ponds will be made during site stabilization activities.

2.4 Future Use

The Hartsville site will be retained in TVA's inventory of sites for potential future use as a site for an electric power generating facility.

TVA will make portions of the site available to public and/or private entities for appropriate uses on an interim basis. Until such time as a specific permanent use is identified the site could be used for agricultural, recreational, or light manufacturing purposes. However, any use of non-TVA entities would be in a manner that would not interfere with ongoing TVA security requirements and material liquidation efforts or with future use of the site for a power generating facility. At the end of this interim use period, interim use areas and structures could be retained and incorporated into construction of some planned permanent site facility or removed and the area environmentally stabilized.

Surfaced roads, and parking lots, graveled areas, and similar facilities will be maintained in an environmentally sound condition. Areas susceptible to erosion will be graded to drain and grassed.

3.0 Environmental Monitoring and Mitigation Programs

All terrestrial and aquatic monitoring programs have been terminated. Water quality monitoring related to the NPDES program will be continued during stabilization. Technical reviews of site stabilization plans and land use proposals to identify any further monitoring or mitigation requirements will be performed.

The meteorological tower will remain on-site in an inactive mode for an indefinte period.

4.0 Socioeconomics

Mitigation programs were initiated and implemented during the deferral stage. In 1982 TVA approved an additional deferral/cancellation economic impact mitigation program. This program was designed to stimulate rapid creation of new, permanent private-sector job opportunities in the impact areas. Under this program a total of approximately $3 million for the three project areas was made available to local communities for loan to new or expanding industries. These loans were provided interest free for up to three years with interest at TVA's long-term borrowing rate beyond this period. At Hartsville a total of eight loans has been made involving $1,425,000. These projects will result in an estimated 630 new private-sector jobs. TVA also has provided approximately $100,000 for a cooperative computer literacy training program involving the State of Tennessee, area vocational schools,

and the boards of education in the five Hartsville impact counties in order to upgrade the skills of the local labor force. Last, we have provided $50,000 over a two-year period to expand the local industries recruiting efforts for the five-county area.

These efforts appear to have been successful in that the unemployment rates in the five counties are not substantially different from that experienced State-wide; and in some instances, the unemployment rates are below the State average.

Because the cancellation of Hartsville Nuclear Plant A will not result in any appreciable change in employment levels at the project, no additional mitigative measures are planned.

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TENNESSEE VALLEY AUTHORITY

TVA CANCELLATION OF THE YELLOW CREEK NUCLEAR PLANT

Docket Nos. STN 50-566
STN 50-567

JULY 1985

YELLOW CREEK NUCLEAR PLANT

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1.0 Introduction

On May 12, 1983, TVA submitted "Details of Deferral Plans for the Yellow Creek Nuclear Plant." On August 29, 1984, the Tennessee Valley Authority cancelled the Yellow Creek Nuclear Plant. Section 2.0 provides a summary of those activities TVA will conduct to stabilize the site and reduce any future environmental impacts.

Several activities associated with the Yellow Creek Nuclear Plant are conducted under the permits issued by other regulatory agencies. Examples of permits within this category include: NPDES permits, Section 401 permit issued by the Corps of Engineers, air quality permits issued by the State, and FAA permits issued by the Federal Aviation Administration. TVA is in the process of discussing with these regulatory agencies the need to retain, modify and/or renew those aspects of the permits that relate to the cancelled nuclear units. Thus, discussions of these activities are not addressed here, except where they have been specifically identified in the construction permit (CP).

2.0 Site Stabilization

The following information describes the stabilization plans for the 1160-acre site of the cancelled Yellow Creek Nuclear Plant.

2.1 Disturbed Areas and Environmental Redressing

The disturbed areas, approximately 585 acres, at YCN include about 90 acres of denuded and spoils areas; 275 acres of graveled open storage areas, parking areas and roadways; 185 acres of construction plant facilities; 10 acres of land committed to permanent features; and 25 acres of temporary holding ponds for plant runoff. The original land use of the site (before construction of YCN) is described in section 2.2 of TVA's Environmental Report. Figure 1 shows the location of the above described areas within the site boundaries.

Miscellaneous equipment located in the switchyards will be removed. Remaining concrete foundations will be left in place. The switchyard area is graveled; therefore, no further stabilization is required. The construction holding ponds will be retained and used to collect site runoff for the duration of site stabilization. NPDES permit limitations for this discharge point will remain in effect during this period.

Materials presently located in the open storage areas will be removed from the site. Because these tracts are presently graveled, no further stabilization effort is planned for these areas. Current plans are to remove all temporary construction buildings from the site within approximately two years unless a continued need for onsite materials storage is identified or alternate onsite uses for the structures are established. Concrete slabs that remain after removal of the buildings will be left in place. Because roadways and parking areas are presently graveled, no additional stabilization is required on these areas. Demolition wastes will be disposed of onsite in accordance with State regulations for solid waste disposal. Toxic and hazardous materials will be disposed of in accordance with hazardous waste regulations.

Permanent plant structures will in general be left in place and in their present state of completion. Some modification to these structures may be required as plans for TVA's investment recovery program are developed. Establishment of positive site drainage may require modifications to some structures and backfill sufficient to partially or completely cover part of the structures. In any event, TVA will establish barriers to prevent unauthorized entry to any remaining structure. These barriers will remain in place until such time as a specific need for the land area or structures has been identified.

The area around the main plant partially completed structures, cooling tower area, switchyard area, and essential service water spray pond areas, will be graded to provide drainage from the area. Backfill will be placed in existing depressions, sumps, or excavations as required to provide drainage. Site drainage, during the stabilization program, will continue to be directed into the construction holding ponds. After grade is established, grass cover will be established in all areas except graveled surfaced areas, concrete slabs, and buildings.

The denuded and spoils areas will be recontoured as necessary for slope stability, covered with soil, and grass cover will be established.

2.2 State of Completion at Cancellation

At discontinuation of construction activities (March 25, 1982), structural progress for unit 1 was 52 percent complete and unit 2 was 9 percent complete. The following list shows the percent of structural concrete completion for the major features/structures:

Feature	Percent Complete Unit 1	Unit 2	Common
1. Auxiliary building	74	23	
2. Fuel building	60	0	
3. Reactor building	37	0	
4. Turbine building	98	16	
5. Cooling towers	15	3	
6. Control building	55	0	
7. CCW pump station			0
8. ESW ponds and intake structure			24
9. Makeup water treatment plant			100
10. Safety office and security building			0
11. Waste management building			58

Some equipment has been installed in the plant buildings. This equipment will be removed at TVA's option. Buried piping and electrical conduits, either permanent or temporary, will be abandoned. At the time of the Yellow Creek Nuclear Plant's cancellation, the design and engineering phase had not been completed on the interconnections for the plant and the expansion of TVA's transmission system. The facilities erected and operable were the temporary transmission construction substation and the 161-kV tapline providing its supply. The line is standing and is operable. Discussions with the local distributor are underway to determine its usefulness in the system. If no foreseeable future use is identified, the line and poles will be removed. The right of way will be allowed to continue its reversion to surrounding land vegetation.

2.3 Permanent Site Modifications

Permanent modifications to the site, which preclude other land uses, are the main plant structures. The concrete slabs which remain after removal of the construction buildings and the various graveled areas around the site will remain as a site modification for an indefinite period of time. TVA will barricade the main plant structures to prevent unauthorized entry. Main plant buildings are to be drained for vector control. The construction holding ponds will be retained and used to collect site runoff for the duration of site stabilization. A decision as to the future status of the holding ponds will be made during site stabilization activities.

2.4 Future Use

The Yellow Creek site will be retained in TVA's inventory of sites for potential future use as a site for an electric power generating facility.

TVA will make portions of the site available to public and/or private entities for appropriate uses on an interim basis. Until such time as a specific permanent use is identified, the site could be used for agricultural, recreational, or light manufacturing purposes. However, any use by non-TVA entities would be in a manner that would not interfere with ongoing TVA security requirements and liquidation of materials or with future use of the site for a power generating facility. At the end of this interim use period, interim use areas and structures could be retained and incorporated into construction of some planned permanent site facility or removed and the area environmentally stabilized.

Surfaced roads, parking lots, graveled areas, and other similar areas will be maintained in an environmentally sound condition. Areas susceptible to erosion will be graded to drain and grassed.

3.0 Environmental Monitoring and Mitigation Programs

All terrestrial and aquatic monitoring programs have been terminated. Water quality monitoring related to the NPDES permit will continue during stabilization. Technical reviews of site stabilization plans and land use proposals to identify any further monitoring or mitigation requirements will be performed.

The meteorological tower will remain on-site in an inactive mode for an indefinite period.

4.0 Socioeconomics

Mitigation programs were initiated and implemented during the deferral stage. In 1982 TVA approved an additional twofold deferral/cancellation economic impact mitigation program. This program was designed to stimulate rapid creation of new, permanent private-sector job opportunities in the impact areas. Under this program a total of approximately $3 million for the three project areas was made available to local communities for loan to new or expanding industries. These loans were provided interest free for up to three years with interest at TVA's long-term borrowing rate beyond this period. At Yellow Creek a total of seven loans have been made involving $715,000. These projects will result in an estimated 370 new private-sector jobs. TVA also provided approximately $710,000 in power funds for cooperative training

programs in north Alabama and northeast Mississippi. These programs were designed to upgrade the skill levels of unemployed craftsmen in the area and to assist in placing the individuals in private-sector construction jobs. As of September 30, 1983, over 720 persons had been trained and placed through the program. Because of this success the programs have been expanded to a larger geographic area and are being continued as demonstration training initiatives funded by congressional appropriations.

Although the area continues to be plagued by losses of jobs due to recent manufacturing plant closings and the completion of local construction for the Tennessee-Tombigbee Waterway, the mitigation efforts undertaken by TVA have been successful. Because the cancellation of Yellow Creek plant will not result in any appreciable change in employment levels at the project, no additional mitigative measures are planned.

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