SBUT 84890

United engineers & constructors inc

30 South 17th Street, Philadelphia, Pa. 19101

IMS INDEX NO. MM/ RECORD TYPE NO. 0750 VENDOR GODE

SPECIFICATION

FOR

CLEARING, GRUBBING, ROUGH GRADING

AND EXCAVATION

FOR

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

SEABROOK STATION

UNIT NOS. 1 & 2

Revisions Approved Checked No. Date Prep. By Ey By SKB 3/12/75 1 SKB 2 9.11.75 OPG. SEB 12/15/75 OPG 3 SKR 1/2/76 OPG 4 SKB 10/22/76 AJD 5 "/21/77 AJD SICB 6 7 12/31/79 8 2/17/84 GHM

Specification No: 9763-8-2

Date: November 22, 1974

Kahuh Prepared By: R. O. Imhof Checked By: Approved By, Hulshizer Approved By: D. H. Rhoads

Rev. 2 retyped 10/10/75

В605120354 860507 PDR ADOCK 05000443 PDR

- 3.1.8 During all phases of his work the Contractor shall protect or cause to be protected all designated trees by the Construction Managers. Trees will be designated by the Construction Managers at the beginning of the field work and from time to time as the job progresses. Barriers, such as chain link fence, barricades, etc., shall be used to implement to protect designated trees.
- Unless directed otherwise by Construction Managers, the 3.1.9 Contractortor shall clean all exposed rock surfaces in the sidewalls and bottoms of the excavations to disclose cracks, seams, and to aid in the determination of suitability of the rock. Cleaning shall be done by directing a stream of water at the rock surfaces from a distance of four feet through a nozzle of 3/4 inch diameter, with a pressure of not less than 50 and not more than 100 pounds per square inch. Cleaning shall remove all loose rock fragments, dust and debris from the surfaces. Initial cleaning of any section of the work shall not commence until the blasting for excavation and removal of projections inside "A" line has been completed within a distance of that section as determined by the Construction Managers. After rock surface has been accepted by the Construction Managers it will be maintained by Others.
- 3.1.10 Furnish and install miscellaneous material required to complete the work regardless of whether such material has been specifically called for or not.
- 3.2 CLEARING, GRUBBING AND TRIMMING
- 3.2.1 The Contractor shall clear and remove from the site all living or dead trees, stumps, down timber, logs, brush, bushes, shrubs, scrub growth, etc., and all debris and other foreign, perishable or objectionable material from above the ground surface as shown on the drawings and specified herein.
- 3.2.2 Sod, grass cover, embedded roots, etc. shall remain for erosion protection, except in new sub-grade levels where all live growth or organic matter shall be removed to a depth of at least 2'-0" below the new elevation. Stumps shall be grubbed out to the same elevation, and removed to the on-site

stump disposal area need not be removed or grubbed out. In no case shall live organic growth be allowed to remain below nor within 5'-0" of any part of new structures, nor below the sub-grade of the ballasted track bed.

3.2.3 Cutoffs shall be as close to the ground as practicable but in no case more than 12 inches above ground line. Trees shall be felled and removed in a manner that will not damage other trees and vegetation that are to remain, and that will not permit trees to fall into the marsh area. In the absence of specified dimensions or instructions, the clearing shall extend parallel to and a maximum of 5 feet beyond the nearest excavated, filled or graded area, or to the property line if less than 5 feet.

- 3.2.4 All existing growth within the area shown to be stripped shall be removed by Contractor's most practical methods and the Contractor shall decide for himself how each piece is to be handled. Large trees may be cleared, the trunks sectionalized for removal, then handled as waste, or trunks may be cut into long lengths, loaded, then removed from the site for use elsewhere.
- 3.2.5 Trees and ground cover to remain shall, in general, be shown on drawings. Specific trees to remain shall be as marked on site by the Owner. The Contractor shall protect from injury or defacement all vegetating objects designated to remain. Trimming shall be performed on tree limbs encroaching in cleared areas, as shown on the drawings.
- 3.2.6 Any trees and shrubs to be relocated shall be as marked on site under the direction of the Owner and shall be protected against damage until relocated by Others.
- 3.2.7 In all cases trees to be felled or other organic growth that is to be removed become the property of the Contractor as soon as they are worked on, and shall be removed as the sole responsibility of the Contractor who may dispose of any reusable parts to his own benefit. All unmerchantable timber and brush (3" or smaller) shall be chipped and stored for mulch or removed from the site. Approximately 5000 cubic yards of wood chips shall be stored on the site as directed by the Construction Managers.

3.5.2.3 Basements remaining in embankment areas shall be cleared of all interior partition walls, materials, equipment and debris. Foundation walls generally shall be pushed in or removed to at least one foot below the adjacent ground level. The basement shall then be filled to the level of the surrounding ground with the same type of material as that found at the site, compacted as directed.

#### 3.6 EARTH EXCAVATION

- 3.6.1 At excavations in earth where questionable foundation material has been found at planned depth, the Contractor shall bring this condition to the attention of the Construction Managers for a determination of corrective measures. When directed by the Construction Managers, trenches shall be dug, in area where grade is to be revised, only after backfilling has been laid and compacted to approval.
- 3.6.2 Excavations in earth for new foundations shall be properly leveled off and footings placed on undisturbed soil, at least 18" below present grade levels, or as shown on the drawings. Loose materials shall be removed and the excavation brought to approved conditions to receive concrete.
- 3.6.3 Excavations shall not be carried outside the lines shown on the drawings except as required to carry out the Contractor's work, and as directed or approved by the Construction Managers.
- 3.6.4 The Contractor shall notify the Construction Managers on the site in writing as soon as excavations for footings or foundation excavations are completed, in order that the bearing quality of the bottom may be determined by the Construction Managers.
- 3.6.5 In cold weather, if concrete cannot be placed immediately, 24" of earth shall be left above excavation bottom to protect the required level of the underlying earth against the danger of penetration of frost.

- 3.6.6 If the final depth has been reached in cold weather and concrete cannot be placed immediately, Contractor shall cover the bottom of the excavation with light, bulky material suitable for this purpose and approved by the Construction Managers, to keep frost from penetrating into earth at the bottom.
- 3.6.7 In case bottoms of excavations become frozen, or wet and soft before footings are poured, the frozen or soft material shall be removed at no expense to the Owner.
- 3.6.8 Excavations shall be maintained free of rain or other water during excavating.
- 3.6.9 Contractor shall submit fifty (50) pound samples of the excavated material to the Construction Managers to determine its suitability for use as fill. Excavated material that is unsuitable for backfill shall be disposed of off-site. Surplus material that is suitable for backfill shall be stockpiled as directed by the Construction Managers. Only presently cleared areas in the new 270' right of way may be used for stockpiling.
- 3.6.10 Earth removed below the grades shown on the drawings shall be replaced with compacted fill to the correct elevation, unless directed by the Construction Managers, at no expense to the Owner.
- 3.6.11 Muck, deposits of saturated or unsaturated mixtures of soils and organic matter not suitable for foundation or road bed material regardless of moisture content may be incorporated into portions of embankment slopes or used for other purposes if approved by the Construction Managers. Otherwise this material is to be disposed of off-site.

#### 3.7 ROCK EXCAVATION

3.7.1 When rock is encountered during the excavating and grading, and should speedy removal by a heavy, power shovel or by sledging, wedging or ripping prove impractical, blasting will be permitted.

- 3.9.5.2 Contractor shall furnish all design and working drawings and shall forward them along with all design loadings for review of the Construction Managers.
- 3.10 Riprap Embankments
- 3.10.1 Material
- 3.10.1.1 Plastic Filter Cloth

Plastic filter cloth shall consist of <u>Poly-Filter-X</u>, produced by Carthage Mills Incorporated, 124 West Sixth Street, Cincinnati, Ohio, 45216, or approved equal. The cloth shall be free of defects, rips, holes or flaws. The sheets of cloth shall be sewn together with polypropylene thread at the point of manufacture to form sections not less than 18 feet wide. All edges of the cloth shall be selvaged or serged. During shipment and storage, cloth shall be wrapped in burlap or similar heavy duty protective covering. The storage area shall be such that the cloth is protected from mud, dirt, dust, and debris.

The plastic filter cloth shall meet all the requirements listed in Table 3.10.1 of this section, and have a service record of not less than 10 years in projects of a similar nature. The Contractor shall furnish the Construction Managers a mill certificate from the producer attesting that the cloth meets the requirements stated in this specification.

#### 3.10.1.2 Stonework

All stone shall be angular selected quarry-run material that is sound, durable, hard and free from lamination, weak cleavages or undesirable weathering. It will not disintegrate from the action of air, water or the service conditions it will be subject to. All stone shall exhibit a minimum specific gravity of 2.65. Up to 25 percent stones, well distributed throughout, may have length greater than 2.5 times but not to exceed 3 times the width or thickness. The volume of the fine materials allowed shall be less that the volume of voids formed by the larger stones. Stones from rock excavation at site, satisfying the requirements specified herein, may be used if approved by Construction Managers.

All materials shall be graded at source and proportioned by weight as follows:

- a. <u>Capstone for Revetment A shall weigh 1<sup>1</sup>/<sub>2</sub> tons to 3 tons</u> each. At least 50 percent of stones shall be more than 2.0 tons each.
- b. <u>A-Stone for Revetment A</u> shall weigh from 300 to 600 pounds each, except that up to 10 percent stones may weigh less than 300 pounds or more than 600 pounds each. At least 50 percent of all stones shall be more than 400 pounds each.
- c. <u>B-Stone for Revetment A shall weigh from 15 to 30 pounds</u> each except that up to 10 percent may weigh less than 15 or more than 30 pounds. At least 50 percent of all stones shall be more than 20 pounds each.
- d. B-Stone for Revetment B same as Item C, above.
- e. <u>Capstone for Revetment C</u> shall weigh from 1000 to 2000 pounds each. At least 50 percent of stones shall be more than 1500 pounds.
- f. A-Stone for Revetment C shall weigh from 50 to 200 pounds each except that up to 10 percent stones may weigh less than 50 or more than 200 pounds each. At least 50 percent of all stones shall be more than 125 pounds each.

#### 3.10.2 Construction

#### 3.10.2.1 Surface Preparation

All riprap areas shall be cleared, grubbed and graded to the slopes as shown on plans. All waste resulting from work shall be removed from site and disposed of off-site as specified in Section 3.2. The areas which are excavated below grades indicated on the plans shall be backfilled with random fill to bring to these grades. All prepared areas shall be inspected and approved by Construction Managers prior to revetment construction.

#### 3.10.2.2 Installation of Plastic Filter Cloth

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The surfaces to receive the cloth shall be prepared to a smooth condition free of obstructions, depressions and debris. The cloth shall be placed with the long dimension perpendicular to the edge of the plant grade and shall be laid loosely but without wrinkles or creases, with 18 inches overlap at each joint. All cloth damaged during handling and installation shall be repaired or replaced.

# 3.10.2.3 Construction of Stone-Revetment

All stones shall be placed by clamshell or other methods approved by the Construction Managers. Tailgating from top of slope shall not be permitted. All types of stones shall be placed in two layers interlocked with the adjacent stones, as shown on the drawings. A-stone and B-stone shall be placed to provide minimum voids. First layer of stones shall not be dropped more than 3.0 feet and no stones shall be dropped more than 10 feet. Upper layers shall be placed only after the exposed stone work has been inspected and approved by the Construction Managers.

CAPSTONES shall be placed to the lines and grades indicated on the plans within a tolerance of -6" and +1'0", normal to revetment slope. Every effort shall be made so as to produce uneven and rough surface.

ATTACHMENT 2

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Regulatory Guide 1.5 (Rev. 0, 3/71) Assumptions Used for Evaluating the Potential Radiological Consequence of a Steam Line Break Accident for Boiling Water Reactors

This regulatory guide is not applicable to Seabrook Station.

Regulatory Guide 1.6	Independence Between Redundant Standby
(Rev. 0, 3/71)	(Onsite) Power Sources and Between Their
	Distribution Systems

The design totally conforms with the recommendations of this regulatory guide.

The subject matter of this guide is discussed in Subsections 8.3.1 and 8.3.2.

Regul	ator	Y.	Gui	de	1.7
(Rev.	2,	11	1/78	)	

Control of Combustible Gas Concentrations in Containment Following a Loss-of-Coolant Accident

The Seabrook Station employs a large dry containment for containing fission gases and aerosols following an accident, in accordance with GDC 50. Any hydrogen generated during an accident is controlled per GDC 41.

Regulatory Guide 1.7, Rev. 2 details an acceptable method of showing compliance with GDC. The design of the Seabrook plant, considering the Westinghouse scope of supply, was analyzed against GDC 41 and 50, using assumptions and models specified in Rev. 2 of this guide.

The BOP design complies fully with Regulatory Guide 1.7, Rev. 2. The amount of  $Zr-H_2$  reaction used for evaluation of combustible gas control is 1.5%. This is based upon five times the calculated amount of Zr reacting from the ECCS performance analysis, as permitted by the regulatory guide, and was used in lieu of the blanket 5%.

Refer to Subsection 6.2.5 for further discussion of this subject.

Regulatory Guide 1.8 (Rev. 1-R, 9/75; reissued 5/77) Personnel Selection and Training

#### Endorses ANS 3.1/ANSI N18.1-1971

The personnel selection and training program meets the requirements of Regulatory Guide 1.8 (1977 edition), except that ANSI/ANS 3.1-1978 will be used as the standard rather than ANS 3.1/ANSI N18.1-1971. REGULATORY GUIDE 1.8

(REV. 1-R, 9/75; REISSUED 5/77) WILL HENCE FORTH APPLY TO THE HEALTH PHYSICS DEPARTMENT SUPERVISOR POSITION AND PERSONNEL SELECTED FOR TEMPORARY REPLACEMENT OF THE HEALTH PHYSICS DEPARTMENT SUPERVISOR SHALL MEET ANSI/ANS 3.1-1981, OR

ADD

EQUIVALENT.

1.8-3

ATTACHMENT 3

**TABLE 3.2-2** (Sheet 38 of 39)

#### Building code: 11.

- AB = Administration and Service Building CE = Containment Enclosure Building CD = Control and Diesel Generator Building CS = Containment Structure CT = Service Water Cooling Tower CW = Service & Circulating Water Pump House EF = Auxiliary Feedwater House & Electrical Penetration Area FB = Fuel Storage Building PB = Primary Auxiliary Building MF = Main Steam and Feedwater Pipe Chase CW = Service Water Pump House TB = Turbine Building WB = Waste Processing Building YD = Yard 56 00 ARS Arrangement drawings for the buildings in which the systems are located are presented in Section 1.2. Ductwork from the downstream side of the air cleaning units to the fan intakes and discharge of the fans to the 12. building boundaries is Safety Class 3, seismic Category I. 45 13. Ductwork located within the mechanical equipment room to the boundary of the control room is Safety Class 3, seismic Category I. 45 14. Motors, valve operators and valve actuators which must operate (run, open or close) in order for the system to perform its safety function are classified as within the scope of the OQAP. Motors or operators which are associated with mechanical components which serve only as part of a pressure boundary are not within the scope of the OQAP. Amendment 56 November 1985 15. Non-safety class equipment and piping essential for diesel generator operation will be subject to pertinent requirements of the OQAP. PELETE 16. This component is NNS, but not fabricated and purchased as Safety Class 3 prior to the final downgrading of the RGWS as NNS in accordance with ANSI/ANS 51.1-1983 requirements.
- The tank support elements should satisfy the requirements of Position 5 of Regulatory Guide 1.143, Rev. 1. 17.

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# TABLE 3.2-2 (Sheet 31 of 39)

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FSAR Section	Systems and Components	ANS Safety Class	Principal Design/Const. Codes/Stds.	Code Class	Seismic Category	Building <sup>(11)</sup>	Supplier	<u>Notes</u> (14)
	Flash Steam Condenser/ Cooler	NNS	ASME VIII, TEMA C	1		PB	AE	L
	Flash Tank Distillate Pump	NNS	MFRS. STDS.	-	· · · ·	РВ	AE	
	Blowdown Evaporator					PB	AE	See Note 8.
	Vapor Body	NNS	ASME VIII	-	-			
	Heating Element	NNS	ASME VIII, TEMA C	-	-			
	Distillate Condenser	NNS	ASME VIII, TEMA C	-	-			
	Distillate Accumulator	NNS	ASME VIII, TEMA CADDED	-	-			
	Distillate Pump	NNS	MFRS. STDS.	-	-			
	Distillate Cooler	NNS	ASME VIII, TEMA C	-	-			
	Bottoms Pump	NNS	MFRS. STDS.	-	-			
	Bottoms Cooler	NNS	ASME VIII	-	-			
	Piping and Valves Inside Containment, up through Isolation Valves	2	ASME III	2	I	CS	AE	
	Other Piping and Valves	NNS	ANSI B31.1	-	-	PB	AE	

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# TABLE 3.2-2 (Sheet 15 of 39)

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SAR ction	Systems and Components	ANS Safety Class	Principal Design/Const. Codes/Stds.	Code Class	Seismic Category	Building <sup>(11)</sup>	Supplier	Notes(1	4)	
	Other	NNS	ANSI B31.1	- ;	-	A11	AE			
3,4	Chemical and Volume Control System									
	Centrifugal Charging Pump	2	ASME III	2	I	РВ	M	See Notes 1 and 1c or 1 and 2.	a   d 54	
	Positive Dicolacement Pump	2	ASME III	2	I	PB	¥	See Notes 1 and 1c or 1 and 2.	a   d 55	SB
	Boric Acid Transfer Pump	3	ASME III	3	I	PB	<u>w</u>	See Note 1b	- 1-	I & SAR
	Volume Control Tank	2	ASME III	2	I	РВ	¥			
	Boric Acid Tank	3	ASME III	3	I	РВ	AE			
	Boric Acid Batching Tank	NNS	ASME VIII	-	-	РВ	AE			
	Chemical Mixing Tank	NNS	ASME VIII	-	-	PB	AE			
	Resin Fill Tank	NNS	ASME VIII	-		PB	AE			
	Regenerative Heat Exchanger	2	ASME II	2	I	CS	<u>w</u>		14	Nover
	Letdown Heat Exchanger					РВ	¥		. 1	nber
	Tube Side	2	ASME III	2	I				1.50	1981
	Shell Side	3	ASME III	3	I			See Note 2.		

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# TABLE 3.2-2 (Sheet 11 of 39)

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FSAR	Systems and Components	ANS Safety Class	Principal Design/Const. Codes/Stds.	Code Class	Seismic Category	Building(11)	Supplier	<u>Notes</u> (14)
.2.3	Demineralized Makeup Water System							
	Storage & Distribution Subsystem							
	Demineralized Water Storage Tank	NNS	API-650, ASME VIII	-		YD	AE	
	Demineralized Water Transfer Pumps	NNS	MFRS. STDS.	-	-	TB .	AE	
	Demineralized Water Storage Tank Heat Exchanger	NNS	ASME VIII	-	-	TB	AE	
	Piping and Valves	NNS	ANSI B31.1	-	-	PB/CD/TB	AE	
	Water Treatment Subsystem	NNS	ASME VIII, MFRS. STDS.	-	-	ТВ	AE	
.2.5	Ultimate Heat Sink							
	Atlantic Ocean							
	Intske & Discharge Tunnels	NNS	-	-	-	-	AE	
	Piping	3 NNS	ASME III and ANSI B31.1	-NNS-	I -	YD YD/TB	AE AE	

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	TABL	E	3	.2-	2	
ŧ	Sheet	1	0	of	39	)

FSAR	Systems and Components	ANS Safety Class	Principal Design/Const. Codes/Stds.	Code Class	Seismic Category	Building(11)	Supplier	Notes (14)
.2.2	Primary Component Cooling Water System (PCCW)							51
	PCCW Pumps	3	ASME III	3	I	РВ	AE	
	PCCW Heat Exchanger	3	ASME III	3	I	PB	AE	
	PCCW Head Tank	3	ASME III	3	I	РВ	AE	56
	Piping and Valves							a s
	Furnish and support cooling water supply to safeguards components	2/3	ASME III	2/3	I	CS/CF/FS	AE	See Note 3.
	Containment Penetration	2	ASME III	2	I	CE	AE	54
	Other	NNS (	ANSI 831.3 ANSI 831.1	-	-	PB/CS WB/FB/YD	AE	 5-
	Thermal Barrier							
	Pumps	3	ASME III	3	I	CS	AE	
	HX .	2/3	ASME III	2/3	I	CS	AE	Ameri
	Head Tank	3	ASME III	3	I	CS	AE	ríl
								The set of

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SBN-1039 ATTACHMENT 4

Primary Connections

These connections must be demonst atom to edequately carry the vertical load during and after the seismic event. Primary connections subject to joint rotations due to seismic loads must be evaluated to verify the connection's ability to carry the primary loads per Section 5.4.1.

Brace Connections

Displacements

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 These connections must be demonstrated to maintain integrity during and after the seismic event. These connections must be evaluated per Section 5.4.2.

 Support displacements may require limitation due to their immediate proximity to other plant hardware. The local proximity must be evaluated for available clearances. In these situations the support displacement must be limited by existing hardware, or the support will be modified to strengthen its lateral support and/or longitudinal restraint.

# 5.4.1 Primary Connections

A sample trapeze type support is pictured in Figure 7. Support flexibility is controlled by the rotational stiffness of the primary connections and the translational stiffness of the brace hardware. These key features are then modeled in any support mathematical evaluation. A typical test moment-rotation diagram for a primary connection is provided in Figure 8. Mathematically, this behavior can bast be represented by bilinear clastic-plastic behavior. The connection, although possessing some initial stiffness, will essentially rotate at a constant moment at higher loading conditions. To ensure structural integrity, primary connection rotation will be limited to its ultimate value derived by connection testing and divided by a factor of <u>2</u> (to be established after completion of testing). Conversely,



Figure <sup>2</sup>	٨	В	N <sup>3</sup>	Q <sup>1</sup>	DEAD <sup>4</sup> LOAD
1a	8	4	6	30°	184
15	14	4	7	30°	215

# NOTES :

A brace is not required for acceptance.
 Displacement criteria of section must be satisfied.
 N = number of trays.
 Total cable weight = lbs/ft.

# FIGURE 6.1

# FIGURE 6.3 (continued)

Figure	A	в	с	D	Ε	N <sup>3</sup>	DEAD <sup>1</sup> LOAD
3a	7	2'10"	NA <sup>2</sup>	NA	NA	3	75
3Ъ	10	3'3"	6'6"	NA	NA	6	120
3c	16'11"	4'1"	NA	6'9"	3'2"	14	560

# NOTES :

- Total cable weight = lbs/ft.
  NA = Not applicable.
  N = Number of trays.







BRACE METEER CONNECTIONS



TRAY SUPPORT CONNECTIONS

NOTE: ) Allowable connection load. (KIPS) 1. (

FIGURE 6.4

atacment 2

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# TABLE 14.2-1 (Sheet 3 of 3)

# Definitions

#### Technical Support

"Technical Support" defines the off-site organizations that will be used to provide technical input for the initial test program, as required.

#### Legend:

STD	Startup Test Department - New Hampshire Yankee	
JTG	Joint Test Group	52
NSS	Nuclear Steam Supply Vendor - Westinghouse Electric Corporation	48
AE	Architect-Engineer and Construction Manager - United Engineers & Constructors	
SS	Station Staff - New Hampshire Yankee	1
NSD	Nuclear Services Division - Yankee Atomic Electric Company	53
TG	Turbice Generator Vendor - General Electric Company	1
SORC	Station Operations Review Committee	

NOTE: (1) SORE SHALL REVIEW AND STATION MANAGER WILL APPROVE. ATTACHMENT 6

04/17/86

#### ISEG IN THE NEY ORGANIZATION

IN RESPONSE TO THE APPARENT CONCERN EXPRESSED BY THE NRC REGARDING THE NHY CHAIN OF COMMAND TO, AND REPORTING CHAIN PROM, THE ISRG, THE FOLLOWING INFORMATION IS SUBMITTED:

1. THE TECHNICAL SPECIFICATIONS REQUIRE THAT "THE ISEG SHALL MAKE DETAILED RECOMMENDATIONS...TO (A HIGH LEVEL CORPORATE OFFICIAL IN A TECENICALLY ORIENTED POSITION WHO IS NOT IN THE MANAGEMENT CRAIN FOR POWER PRODUCTION)."

IN THE NEW ORGANIZATION THE ISEG REPORTS TO THE EXECUTIVE ASSISTANT TO THE SENIOR VICE PRESIDENT.

" THE EXECUTIVE ASSISTANT IS A "HIGH LEVEL CORPORATE OFFICIAL."

HE HAS ACCESS TO THE SENIOR VICE PRESIDENT THAT IS EQUAL TO, OR MORE PREDUENT THAN, THE ACCESS OF THE VICE PRESIDENTS AND DIRECTORS OF THE LINE AND STAFF DIVISIONS.

- THE EXECUTIVE ASSISTANT IS IN A TECHNICALLY ORIENTED POSITION. HE DEALS WITH NUCLEAR SAFETY, ENGINEERING, AND TECHNICAL MATTERS DAILY.
- THE EXECUTIVE ASSISTANT IS NOT IN THE MANAGEMENT CHAIN FOR POWER PRODUCTION. THIS IS CLEARLY SHOWN IN THE NEY ORGANIZATION CHART.

THE ONLY OTHER "HIGH CORPORATE OFFICIALS" IN A "TECHNICALLY ORIENTED POSITION" WHO HAVE THE REQUISITE UNDERSTANDING OF OPERATIONAL NUCLEAR SAFETY MATTERS AND WHO ARE "NOT IN THE MANAGEMENT CHAIN FOR POWER PRODUCTION" ARE THE VICE PRESIDENT QUALITY PROGRAMS AND THE DIRECTOR OF ENGINEERING.

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- THE VICE PRESIDENT QUALITY PROGRAMS IS AN INAPPROPRIATE CHOICE FOR A REPORTING SENIOR FOR THE ISEG FOR TWO REASONS:
  - QA IS BASICALLY AN AUDIT FUNCTION WHILE ISEG IS NOT. TO COMBINE THE TWO ORGANIZATIONALLY WOULD BLUE AND CONFUSE THIS DISTINCTION AND RESULT IS A SIGNIFICANTLY LESS EFFECTIVE ISEG.
  - 2) THE NHY ISEG EAD ISSUED FIVE RECOMMENDATIONS THAT SEEK ACTION BY THE QA ORGANIZATION. THE APPRARANCE, IF NOT THE REALITY, OP IHAPPROPRIATE INFLUENCE ON THE NUCLEAR SAFETY RELATED DECISIONS OF THE ISEG IS, THEREFORE, A FACTOR THAT PRECLUDES THE POSITIONING OF THE ISEG WITHIN THE OA ORGANIZATION.
- \* THE DIRECTOR OF ENGINEERING IS SIMILARLY AN INAPPROPRIATE REPORTING SENIOR FOR THE ISEG.
  - THE "INDEPENDENCE" OF THE ISEG MUST PERTAIN TO ITS ABILITY TO CRITICALLY REVIEW ENGINEERING AS WELL AS OPERATIONAL ASPECTS OF NUCLEAR SAFETY.

- 2) THE NEY ISEG HAS ISSUED TWO RECOMMENDATIONS THAT SEEK ACTION BY THE DIRECTOR OF ENGINEERING. THE SAME CONSIDERATIONS AS EXPRESSED ABOVE REGARDING THE INCLUSION OF ISEG IN THE QA ORGANIZATION APPLY EQUALLY HERE.
- 2. THE ISEG HAS BEEN ESTABLISHED AND FUNCTIONS PURSUANT TO A CHARTER AND ALSO AN INTERFACE AGREEMENT (IA). THESE DOCUMENTS, THAT HAVE BEEN APPROVED AND PROMULGATED BY THE SENIOR VICE PRESIDENT, CLEARLY ESTABLISH THE ISEG AND PROVIDE EXECUTIVE DIRECTION THAT THE RECOMMENDATIONS SUBMITTED BY THE ISEG RECEIVE APPROPRIATE CONSIDERATION AND ACTION BY THE LINE AND STAFF EXECUTIVES AND MANAGEMENT, AND THAT A RESPONSE IS SENT BACK TO THE ISEG.
- 3. THE ISEG, AS REQUIRED BY THE CHARTER, INTERPACE AGREEMENT, AND THE PSAR, DISTRIBUTES TO THE SENIOR VICE PRESIDENT A MONTHLY REPORT THAT CONTAINS A SUMMARY OF ISEG WORK COMPLETED AND RECOMMENDATIONS SUBMITTED.
- 4. THE NEY ISEC HAS BEEN INSPECTED, REVIEWED AND EVALUATED BY NRC 148 FROM REGION I AND BY INPO. THESE TWO ORGANIZATIONS WERE FURNISHED COPIES OF THE TECHNICAL SPECIFICATIONS, PSAR SECTIONS, CHARTER AND INTERFACE AGREEMENT DISCUSSED ABOVE. SEVERAL HOURS WERE SPENT EXAMINING THE FUNCTIONING OF THE ISEG WITH THESE INSPECTORS. THE NHT ORGANIZATIONAL ARRARGEMENTS, ROTED ABOVE, WERE CONSIDERED IN BOTH EVALUATIONS AND WERE FOUND TO BE COMPLETELY SATISFACTORY AND ACCEPTABLE.

5. IF THE DEGANIZATIONS WERE REARRANGED SO THAT THE ISEG REPORTED DIRECTLY TO THE SENIOR VICE PRESIDENT, THE RESULT WOULD BE A DILUTION OF HIS COMMAND ATTENTION TIME AND NOT BE AN IMPROVEMENT IN COMMUNICATING THE CONCERNS OF THE ISEG TO THE SEMIOR VICE PRESIDENT NOR AN IMPROVEMENT IN NUCLEAR SAFETY.

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6. <u>CONCLUSION</u>: ALL THESE FACTORS WERE CONSIDERED WEEN THE EXISTING NHY ORGANIZATION WAS ESTABLISHED AND REMAIN EQUALLY AFPLICABLE TODAY. THE ARRANGEMENT, WHEREBY THE ISEG REPORTS TO THE SENIOR VICE PRESIDENT TEROUGH THE EXECUTIVE ASSISTANT, CONTINUES TO BE OPTIMUM FOR NHY.