Tennessee Valley Authority

Engineering Graduate Progression Program

Making the Best Better!

Revision 2 - September 1, 2005

INDEX

OVERVIEW

The TVA EGPP is a jointly administered program designed to address the need to develop TVA graduate engineers to the Senior Engineer level. A combination of required work assignments, demonstrated competencies, and formal, informal, on-line, and "on the job" training allows level A engineers to progress in knowledge, skills, and experience in order to demonstrate proficiencies and become fully qualified Senior Engineers.

The overall administration of this program is guided by the TVA Engineering Peer Team, and specific business unit implementation is jointly administered by each of TVA's engineering line organizations and the Engineering Association, Inc; TVA Nuclear, Fossil Power Group, Transmission Power Supply, and River Systems Operations and Environment engineering units. The program is administered in accordance with TVA policies and procedures and the Articles of Agreement, and the graduate is subject to all TVA regulations affecting annual salary policy employees.

The program consists of three phases of development, as well as reward opportunities for graduates as they progress toward the Senior Engineer Level. The three phases (as shown in Appendix A) are as follows:

Phase I - Orientation Training
Phase II - Position Specific Training
Phase III - Advanced Position Specific Training

Graduates will enter Phase I of the program upon initial employment at TVA. This period is expected to last 12 to 18 months. During this period engineers will be introduced to TVA and their assigned engineering unit through a general orientation program as well as general engineering training. This training is intended to provide the graduate with the basic knowledge of TVA, its business practices and the engineering unit's basic procedures as well as general plant system knowledge. Special internal and/or external training may be utilized consistent with the engineering unit's or job requirements. Supervised work assignments will be optimized in order to provide effective on-the-job training, within business needs.

Phase II will consist of additional formal, informal, and "on-line" training; job specific qualifications and work assignments; demonstrated job proficiencies; as well as supporting plant outages. Moderate supervision will be provided during this phase. This period is expected to last 18 to 24 months.

OVERVIEW (Continued)

Phase III will consist of advanced formal training, informal training, job specific job proficiencies, qualifications and work assignments with minimal supervision. This period is expected to last 18 to 24 months.

Qualifications and demonstrated proficiencies for phases II and III have been developed for each job description and are required to be completed in order for the graduate to become a fully qualified Senior Engineer. Engineers will complete productive work assignments that will aid in applying training and in their technical development. A minimum of 48 months experience is expected to achieve this level of judgment and independence. Upon completion of all three phases and upon certification by the supervisor that the graduate has achieved the necessary level of judgment and independence, an overall review and approval of the engineer's performance and demonstrated proficiencies by an Engineering Review Board will lead to reclassification as a Senior Engineer. Any requests to convene Engineering Review Boards before the graduate has completed a minimum of 48 months as a graduate engineer must be approved by the Job Family-Specific Progression Program Committee.

Participants removed by the applicable SBU or Job-Family Progression Committee for unsatisfactory progress will be terminated, unless they are placed in another TVA position.

OBJECTIVES

- To ensure TVA Engineering remains top in the nation.
- To provide guidance and work experience in selected phases of work in each TVA engineering organization for Engineer level personnel.
- To prepare participants to perform a variety of activities in their Engineering units and become proficient in the performance of duties in accordance with TVA standards.
- To improve job efficiency and performance of new engineers by providing information for them and communication with them to develop an understanding of the purpose, responsibilities, and functions of their Engineering unit.
- To provide a systematic approach to learning and technical progression towards becoming a fully qualified Senior Engineer at TVA.

MENTORS:
Mentors are key elements in the success of the TVA EGPP. A mentor will assume the role of sponsor, teacher, and counselor. Each graduate will be assigned a mentor who is a staff member within the Engineering Unit's organization.

Key responsibilities of the mentor include:

- Serving as a role model who provides continual encouragement to the graduate.
- Providing general guidance and insight to the graduate regarding career opportunities and career backgrounds and paths necessary to qualify for opportunities.
- Providing specific guidance and suggestions for the scheduling of training for the graduate.
- Providing feedback to the Engineering unit's management to allow the graduate the necessary assignments in order to gain the knowledge and demonstrate the proficiencies of their training plan in a timely manner.
- Monitoring the graduate's progress and providing feedback to the Engineering unit's Senior Manager concerning any problems that may have been identified.

Additionally, each graduate may be assigned technical experts or senior engineers to assist the graduate in performing assignments until Phase III is complete and the engineer is qualified to perform the required engineering functions independently. These experts/senior engineers may change based on the specific assignments and are intended to provide the detail direction on the procedural and site requirements that may be unique and vary from site to site.

INDIVIDUAL PROGRESSION PLAN:
Each Engineering organization, under the guidance of the TVA Engineering Peer Team, will develop a detailed Individual Progression Plan (IPP) for each engineering level employee, which will serve as the basis for documenting individual progression plans for specific job activities, demonstrated proficiencies, and qualifications.

Appendix B provides the general requirements for all TVA IPP's. Consistency across TVA as well as within each Engineering unit is required, and is based upon the requirements of each specific job description. The IPP is the basis for the minimum activity requirements and assignments during all three phases. Appendix C is a matrix of IPP's applicable to all engineering positions in the TVA.

The graduate is responsible for completing all required activities, demonstrating the required job proficiencies, and obtaining the necessary qualifications. This may require work away from their "home/official station" assignment for short periods of time. The graduate is also responsible to provide feedback to his or her mentor and supervisor concerning any technical problems which may arise, or when additional instruction/mentoring is required, or when current job assignments may preclude the attainment of the requirements of their IPP. TVA reserves the right to adjust this plan or individual IPP's as needed to address changing business needs. (Note: The manager of the participant may use form TVA 17819, TVA Progression Plan Activity Completion Form to document satisfactory completion of multiple requirements by the participant)

Completion of the IPP is an important part of a participant's job responsibilities. IPP progress shall be documented in the participant's annual performance review. See Appendix H for suggested comments for annual reviews.

ENGINEERING REVIEW BOARD (ERB):
The organization's ERB must approve all reclassifications to Senior Engineer level using the process described in Appendix D. Each Engineering unit is responsible for a consistent approach to ensure that each graduate completes all the minimum requirements on their IPP, and that they are proficient in performing these tasks and meeting the requirements such that they can work independently. All training must be completed with a passing score and documented in ATIS.

Demonstrated proficiency skills must be demonstrated and signed off by a senior engineer or higher level engineer or manager, proficient in that skill. The skill attainment must be documented (issued calculation, system description, test report, etc.). If a qualification card is part of the IPP, it must be completed. The engineer and his/her immediate supervisor are responsible for keeping a "folder" with necessary documentation to support the individual's progression. Documentation will include the following as a minimum:

- Detailed IPP Report (ATIS) indicating all requirements and completions
- Records of Calculations completed by the individual (EDMS or other)
- Examples of the individual's work (e.g. PRC packages)
- Performance Review & Development Forms for the Level A work period

EQUIVALENCY AND EXEMPTION GUIDELINES
Required activities are identified by position and Individual Progression Plans (IPP) and assigned to individuals by their supervisor. Guidelines are provided in Appendix E to allow for substitutions/exemption and/or equivalency reviews as warranted by individual circumstances.

IMPLEMENTATION GUIDELINES:
The engineering progression program became effective on January 1, 2003. All new engineers brought into the TVA Engineering Organization after that date will be placed into the program and will be expected to complete the entire program prior to reclassification to the Senior Engineer level.

Guidelines for applying the program to existing level A engineers:

The objective of the plan is to ensure a consistent approach for training, developing, and compensating graduate engineers within TVA. To this end, level A engineers who are in a TVA Engineering organization as of January 1, 2003, will be individually evaluated against the appropriate IPP. The level A engineer's immediate manager is responsible for reviewing and documenting all training and experience progress to ensure that they are complete prior to initiating a request to convene an Engineering Review Board. An evaluation performed and documented by the Senior Manager, will consist of reviewing equivalent/substitute training, related experience, completion of specific/varied work assignments, demonstrated proficiencies, and other factors deemed necessary to ensure the candidate has achieved the desired level of engineering skills and competencies to perform at the Senior Engineering level.

Each evaluation and recommendation for reclassification will require approval of the EGPP Engineering Review Board responsible for that organization.

TVA EGPP Revisions Management Plan

Appendix F contains the requirements for updating, maintaining and approving changes to these guidelines. This process is designed to ensure consistency to the administrative controls and updates necessary in TVA.

ISSUES AND DISPUTE RESOLUTION

Issues concerning administration of TVA Employee Progression programs for EA-represented employees are not appropriate for the grievance process. However, a formal process for the resolution of such issues is to the mutual benefit of TVA and the EA. Accordingly, the following process shall be available to employees who have issues with the administration of TVA Employee Progression programs as it affects them as employees. No time limits are specified for steps in this process. However, all parties are expected to respond to issues in a timely manner. If issues are not addressed timely (around 30 days at each level), they may be elevated to the next level.

1. Discuss issue with immediate supervisor. DUR may participate in discussion. Parties should attempt to resolve issue at this level. Plan documents and IPPs provide the guidance for plan administration.

2. If issue is not resolved by the immediate supervisor, the employee may present the issue to the local Progression Program committee (BU or SBU). The committee will attempt to resolve the issue, in accordance with the plan documents.

3. If the issue is not resolved at the local committee level, the employee may have the issue reviewed by the Job Family-Specific Progression Program Committee. The decision of the Job Family-Specific Progression Program Committee is considered to be final.

4. In the unlikely event that the Job Family-Specific Progression Program Committee is unable to render a decision on the issue, the issue may be referred to a committee consisting of the Senior Vice President, Employee Relations and Diversity, the Chair of the TVA Engineering Peer Team, the EA Valley-Wide President, and the EA Senior Labor Relations Specialist, for final resolution.

TVA Engineering Graduate Progression Plan (EGPP) Model

Appendix A

Engineer - Level A	Senior Engineer - Level B
Eligible for annual increases and EA Off-Cycle Pay Adjustments	**Reclassification to Senior**

Phase I (12-18 Months)

TVA ORIENTATION AND INITIAL ENGINEERING ACTIVITIES

e.g. New Employee Experience
STAR 7
Technical Administrative Training:
e.g. Health & Safety
Environmental
Business Processes
Work Management Systems
Technical Fundamentals:
e.g. Systems Training
Developmental Work Assignments
Mentor Assigned

OPA

Phase II (18-24 Months)

POSITION SPECIFIC-DISCIPLINE ACTIVITIES

e.g. Root Cause Analysis
Regulatory Project Support
System Activities
Qualification Cards
On-the-Job Training
Developmental Work Assignments

OPA

Phase III (18-24 Months)

ADVANCED POSITION SPECIFIC QUALIFICATIONS AND DEMONSTRATED PROFICIENCY

e.g. Advanced Regulatory Projects
Systems Analysis
Advanced Qualification Cards
In-depth On-the-Job Training
Developmental Work Assignments

RECLASS

Approval by Engineering Review Board

Phase I, II & III Training complete

Qualification Requirements Met

Fully competent engineer by demonstrated proficiency, (e.g. Achievement of PE license)

Minimum 4 years of experience

PHASE 1	**PHASE 2*	**PHASE 3*	**Reclassify to Senior*
A - LEVEL Entry Rate	*A-LEVEL*	*A-LEVEL*	*Engineer*
80 - 100%	*95 -110%*	*100 -120%*	*B-LEVEL*
min - max	*min - max*	*min - max*	*80-100%*
			min - max

**Compensation Guidelines: as the graduate completes each phase of the TVA EGPP, an incentive award may be granted, in accordance with the above percent of midpoint indicated for each phase. Progression between phases is based upon successful completion of classroom training, on-the-job training, and actual work assignments.*

11/27/02

TVA Orientation and Initial Engineering Training

Phase 1 Requirements for Progression to Level B - Common to all Engineering Disciplines

ACTIVITIES	TVAN	FPG	TPS	RSO&E
TVA/Organization Indoctrination				
New Employee Experience (Orientation)	X	X	X	X
Fitness for Duty (as required)	X	X	X	X
STAR 7 Phase 1 (SBU)	X	X	X	X
E-Pay & Travel Expenses & Online PR&D	X	X	X	X
E-Workplace & Electronic Timesheets	X	X	X	X
Winning Performance - Integrated Performance Management	X	X	X	X
Technical Administrative				
Health and Safety - Orientation and specific training as required by SBU	X	X	X	X
Environmental Training/Overview		X	X	X
Conduct of Operations, Mtnce, Engg & Trg	X	X		
Performance (Business) Planning Process Overview	X	X	X	X
Print reading/TVA Drawing System(Plant Reference Material)	X	X	X	X
Site/Position Specific Environmental Requirements	X	X	X	X
Process & Procedure Systems (EDMS/Filenet/BSL)	X	X	X	X
Configuration Management (config. control/DCN/TAP/UNID)	X	X	X	X
Projects Processes - Overview	X	X	X	X
Human Performance Training	X	X	X	X
Technical Fundamentals				
Modifications & Work Controls (work plans)	X		X	
Regulatory Requirements	X	X	X	X
DCN Process	X	X	X	X

TVA Orientation and Initial Engineering Training Phase 1 Requirements for Progression to Level B - Common to all Engineering Disciplines				
ACTIVITIES	TVAN	FPG	TPS	RSO&E
Required Reading	X	X	X	X
Power Generation/Transmission Systems/River Systems	X	X	X	X
Engineering Applied Fundamentals	X	X		X
Performing Calculations & Calculation Cross Reference Information Systems Training (CCRIS)	X	X	X	X
EMPAC and/or Work Management Systems	X	X	X	X
Corrective Action Program & eCAP	X	X	X	X
Electric Utility System Operations		X	Optional	Optional
Developmental Work Assignments	X	X	X	X

TENNESSEE VALLEY AUTHORITY

ENGINEERING GRADUATE PROGRESSION PROGRAM

ELECTRICAL AND I & C

PHASE II Electrical and I&C (Design)					PHASE III Electrical and I&C (Design)				
Position Specific/Discipline Training and Qualifications					Advanced Position Specific Qualifications and Independent Proficiency				
ACTIVITIES	TVAN	FPG	TPS	RSO&E	ACTIVITIES	TVAN	FPG	TPS	RSO&E
GENERIC					**GENERIC**				
General construction specs	X	X	X	X	Level 1 - Root cause analysis	X	X	X	
Communication skills (e.g. presentations, conflict resolution, and technical writing)	X	X	X	X	Lead joint project team	X	X		X
Job specific software	X	X	X	X	Serve as technical lead on a small/medium size project	X	X	X	X
Walkdowns/site visits	X	X	X	X	Prep and review a 50.59 evaluation	X			
ALARA job planning	X				Independent qualified reviewer	X			
Checking	X	X	X	X	Revising licensing/regulatory documents	X	X		
Review a design standard or guide	X	X	X	X	Independent Verification	X			
Human Factors Engineering	X		X		Issue a design change	X	X	X	X
Project Support/Contract Administration					Review Bids and award contract	X	X	X	X
Write Material Specification	X	X	X	X	Preparing Appendix R/ Reviews	X			
Initiate requisition	X	X	X	X	**Developmental work assignments**	X	X	X	X
Coordinate/attend site kickoff meeting with vendor	X	X		X	**Group/discipline specific qual. cards as applicable**	X	X	X	X
Review and approve contract drawings	X	X	X	X					
Generate Bill of Materials	X	X	X	X					
Project Development									
Develop Phase I Level Scope Document	X	X	X	X					
Support PE/PCS on Initial Schedule Development	X	X	X	X					
Compile Preliminary Engineering Study w/ Cost Estimates	X	X	X	X					
Capital Project Implementation Support									
Provide design support during outage	X	X	X	X					
Perform outage testing	X	X	X	X					
Support unit startup after implementation	X	X	X	X					
PHASE II Electrical and I&C (Design)					**PHASE III Electrical and I&C (Design)**				

Position Specific/Discipline Training and Qualifications					Advanced Position Specific Qualifications and Independent Proficiency
ACTIVITIES	TVAN	FPG	TPS	RSO&E	
Coordinate Tuning of control loops (if applicable)	X	X	X	X	
Developmental Work Assignments	X	X	X	X	
ELECTRICAL SPECIFIC					
Perform Factory Acceptance Test	X	X		X	
Cable Installation & Damage Insp	X	X	X	X	
Cable Routing	X	X	X	X	
Cable Analysis	X	X	X	X	
Shielding / Grounding Applications & Techniques		X	X	X	
National Electric Code or National Electric Safety Code		X	X	X	
Surge Suppression		X	X	X	
CT / PT / Metering Fundamentals			X	X	
Design Calculations					
Calculations:	X	X	X	X	
Voltage Drop	X	X	X	X	
Short Circuit Analysis	X	X	X	X	
Load Flow Analysis	X	X	X	X	
Protective Device TVArdination	X	X	X	X	
Battery Calculations	X	X	X	X	
Electrical Design Activities					
Size Cable, conduits, cable trays	X	X	X	X	
Develop/revise cable & conduit schedules	X	X	X	X	
Develop/revise lighting drawings	X	X	X	X	
Develop/revise conduit and grounding dwgs	X	X	X	X	
Develop/revise electrical connection dwgs	X	X	X	X	
Develop/revise electrical single line dwgs	X	X	X	X	
Develop/revise schematic diagrams	X	X	X	X	
INSTRUMENT & CONTROLS SPECIFIC					
I&C Design Activities					
Develop I/O List	X	X		X	

PHASE II Electrical and I&C (Design) (Continued)					**PHASE III Electrical and I&C (Design)**
Position Specific/Discipline Training and Qualifications					Advanced Position Specific Qualifications and Independent Proficiency
ACTIVITIES	TVAN	FPG	TPS	RSO&E	
Shielding / Grounding Applications & Techniques		X		X	
Hydro Unit Control Philosophies				X	
Data Transfer Protocols / Connections				X	
Review/specify system description	X	X		X	
Review/specify vendor SAMA logic	X	X		X	
Review/specify P&ID diagrams	X	X		X	
Review/specify DCS or PLC Graphics	X	X		X	
Develop/revise DCS or PLC loop diagram	X	X		X	
Distributed Control Systems & Training	X	X		X	
Instrument accuracy calculations and SSD's	X			X	
Elect/Mech Environmental Quals	X				
Root cause analysis				X	
Failure modes and effect analysis				X	

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ENGINEERING GRADUATE PROGRESSION PROGRAM

MECHANICAL

PHASE II Mechanical (Design)					PHASE III Mechanical (Design)				
Position Specific/Discipline Training and Qualifications					Advanced Position Specific Qualifications and Independent Proficiency				
ACTIVITIES	**TVAN**	**FPG**	**TPS**	**RSO&E**	ACTIVITIES	**TVAN**	**FPG**	**TPS**	**RSO&E**
GENERIC					**GENERIC**				
General construction specs	X	X		X	Root cause analysis	X	X		
Communication skills (e.g. presentations, conflict resolution, and technical writing)	X	X		X	Failure modes and effect analysis	X	X		
Job specific software	X	X		X	Lead joint project team	X	X		X
Walkdowns	X	X		X	Serve as technical lead on a small/medium size project	X	X		X
ALARA job planning	X				Prep and review a 50.59 evaluation	X			
Checking	X	X		X	Independent qualified reviewer	X			
					Revising licensing/regulatory documents	X	X		
Procurement Support/Contract Administration					Independent Verification	X			
Generate Bill of Materials	X	X		X	Issue a design change	X	X		X
Write Material Specification	X	X		X	Review Bids and award contract	X	X		X
Initiate requisition	X	X		X	**Developmental Work Assignments**	X	X		X
Coordinate/attend site kickoff meeting with vendor	X	X		X	**Group/discipline specific qual cards as applicable**	X	X		X
Review and approve contract drawings	X	X		X					
Project Development									
Develop Phase I Level Scope Document	X	X		X					
Compile Preliminary Engineering Study w/ Cost Estimates	X	X		X					
Support PE/PCS on Initial Schedule Development	X	X		X					
Capital Project Implementation Support									
Provide design support during outage	X	X		X					
Perform outage testing	X	X		X					
Support unit startup after capital project implementation	X	X		X					

PHASE II Mechanical (Design) (Continued)					**PHASE III Mechanical (Design)**
Position Specific/Discipline Training and Qualifications					Advanced Position Specific Qualifications and Independent Proficiency
ACTIVITIES	TVAN	FPG	TPS	RSO&E	
Coordinate Tuning of control loops (if applicable)	X	X		X	
Developmental Work Assignments	X	X		X	
Design Discipline Quals -Mechanical					
Fire Protection Reviews and/or Appendix R/	X	X		X	
Control Valves/Valve Sizing	X	X		X	
MELB & HELB Flooding Analysis	X				
Electrical/Mechanical Env Quals	X	X			
Heat Transfer Quals	X	X		X	
HVAC	X	X		X	
Hydraulic Quals	X	X		X	
Demonstrated Discipline Skills					
Calculation Preparation/Issuance	X	X		X	
HVAC Calculations	X	X		X	
Heat Transfer Calculations	X	X		X	
Pipe/Valve/Pump Sizing Calculations	X	X		X	
Piping layout/design	X	X		X	
Valve & Orifice Sizing Calculations	X	X		X	
Heat Balance Analysis	X	X		X	
Mechanical Components (e.g. heat exchangers, pumps, valves, boilers, turbines, compressors, fans, conveyors, etc)	X	X		X	
Mechanical Design Activities					
System layout and flow drawings	X	X		X	
Piping & HVAC layout drawings	X	X		X	
Codes and Standards Proficiency (ASME, ANSI, etc)	X	X		X	
Plant general arrangement drawings	X	X		X	
Root cause analysis				X	
Failure modes and effect analysis				X	

TENNESSEE VALLEY AUTHORITY

ENGINEERING GRADUATE PROGRESSION PROGRAM

CIVIL

PHASE II CIVIL (Design)					PHASE III CIVIL (Design)				
Position Specific/Discipline Training and Qualifications					Advanced Position Specific Qualifications and Independent Proficiency				
ACTIVITIES	TVAN	FPG	TPS	RSO&E	ACTIVITIES	TVAN	FPG	TPS	RSO&E
GENERIC					**GENERIC**				
General construction specs	X	X	X	X	Root cause analysis	X	X	X	
Communication skills (e.g. presentations, conflict resolution, and technical writing)	X	X	X	X	Failure modes and effect analysis	X	X	X	
Job specific software	X	X	X	X	Lead joint project team	X	X		X
Walkdowns/site visits	X	X	X	X	Serve as technical lead on a small/medium size project	X	X	X	X
ALARA job planning	X				Prep and review a 50.59 evaluation	X			
Checking	X	X	X	X	Independent qualified reviewer	X			
Review a design standard or guide	X	X	X	X	Revising licensing/regulatory documents	X	X		
					Independent Verification	X			
Procurement Support/Contract Administration					Issue a design change	X	X	X	X
Write Material Specification	X	X	X	X	Review Bids and award contract	X	X	X	X
Initiate requisition	X	X	X	X	**Developmental work assignments**	X	X	X	X
Coordinate/attend site kickoff meeting with vendor	X	X		X	**Group/discipline specific qual cards as applicable**	X	X	X	X
Review and approve contract drawings	X	X	X	X					
Generate Bill of Materials	X	X	X	X					
Project Development									
Develop Phase I Level Scope Document	X	X	X	X					
Compile Preliminary Engineering Study w/ Cost Estimates	X	X	X	X					
Support PE/PCS on Initial Schedule Development	X	X	X	X					

PHASE II CIVIL (Design) (Continued)					**PHASE III CIVIL (Design)**
Position Specific/Discipline Training and Qualifications					Advanced Position Specific Qualifications and Independent Proficiency
ACTIVITIES	TVAN	FPG	TPS	RSO&E	
Capital Project Implementation Support					
Provi de design support during outage	X	X	X	X	
Design Calculations					
Prepare calculations per procedure	X	X	X	X	
Structural Concrete (e.g., Beams, columns, slabs, foundations, walls, spillway aprons and tailways)	X	X	X	X	
Steel design (e.g. beams, columns, miscellaneous, platform, support, penstocks, spillway gates, locks, transmission towers, communications towers)	X	X	X	X	
Site civil (e.g. grading, drainage, soil analysis, embankment, tunnels, caissons)	X	X	X	X	
Seismic/dynamic analysis	X	X	X	X	
Anchorage and base plates	X	X	X	X	
Inspections					
Inspections (e.g. chimney, tunnels, coal bunkers, maintenance rule, dams, locks, bridges, embankments, facilities, TVAling towers, etc)	X	X	X	X	
Training commensurate with inspections required	X	X	X	X	
Civil Design Activities					
Concrete layout drawings	X	X	X	X	
Steel layout drawings	X	X	X	X	
Connection designs	X	X	X	X	
Code & Standards proficiency (AISC, ACI, AWS, G-specs)	X	X	X	X	
Site layout and general arrangement drawings	X	X	X	X	
Developmental work assignments	X	X	X	X	
Root cause analysis				X	
Failure modes and effect analysis				X	

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SYSTEMS

PHASE II SYSTEMS ENGINEER				
Position Specific/Discipline Training and Qualifications				
ACTIVITIES	TVAN	FPG	TPS	RSO&E
GENERIC				
General construction specs	X	X	X	X
Communication skills (e.g. presentations, conflict resolution, and technical writing)	X	X	X	X
Job specific software	X	X	X	X
Support joint project team	X	X	X	X
ALARA job planning	X			X
Checking	X	X	X	X
Walkdowns/site visits	X	X	X	X
Review a system description	X	X		X
Human Factors Engineering				X
Project Development				
Develop Phase I Level Scope Document	X	X	X	X
Compile Preliminary Engineering Study w/ Cost Estim ates	X	X	X	X
Support PE/PCS on Initial Schedule Development	X	X	X	X
Capital Project Implementation Support				
Provide system support during mods/maint.	X	X	X	X
Perform mods/maint. testing	X	X	X	X
Support startup	X	X	X	X
Systems Activities				
Temporary alterations	X	X	X	X
System maintenance/performance/ Surveillance Inspections	X	X	X	X
Maintenance Rules	X			X
System codes and standards	X		X	X
Proper use of Maint. & Testing Equipment	X	X	X	X
Significant Event Analysis		X	X	X
Developmental Work Assignments	X	X	X	X
Root cause analysis				X
Failure modes and effect analysis				X

PHASE III SYSTEMS ENGINEER				
Advanced Position Specific Qualifications and Independent Proficiency				
ACTIVITIES	TVAN	FPG	TPS	RSO&E
GENERIC				
Root cause analysis	X	X	X	
Failure modes and effect analysis	X	X	X	
Serve as technical lead on a small/medium size project		X	X	X
Prep and review a 50.59 evaluation	X			
Independent qualified reviewer	X			
Revising licensing/regulatory documents	X	X		
Independent Verification	X			
Issue a design change		X	X	X
Developmental Work Assignments	X	X	X	X
Group/discipline specific qual cards as applicable	X	X	X	X

TENNESSEE VALLEY AUTHORITY

ENGINEERING GRADUATE PROGRESSION PROGRAM

NUCLEAR

PHASE II NUCLEAR ENGINEER				
Position Specific/Discipline Training and Qualifications				
ACTIVITIES	TVAN	FPG	TPS	RSO&E
Generic Engr Skills				
ALARA Job Planning	X			
General Construction Specifications	X			
Issuing a Design Change	X			
Elect Utility Sys Operations Course	X			
Generate Bill of Materials				
Participate in 10%, 50% and 100% Design Mtgs	X			
Walkdowns	X			
Initiate Purchase Requisition	X			
Demonstrated Discipline Skills				
Calculation Preparation/Issuance	X			
Dose Calculations	X			
Shielding Analysis Calculations	X			
Safety/Accident Analysis Calculations	X			
Containment Design/Analysis	X			
Heat Transfer Analysis	X			
Thermal/Hydraulic Analysis	X			
ASME Code Familiarization	X			
ECCS Analysis	X			
Rad Waste Systems Analysis	X			
Equipment Qualification	X			
Design/Licensing/Operating Basis	X			
Outage Support				
Support 2 refueling outages	X			
Communication skills (e.g. presentations, conflict resolution, and technical writing)				
Coaching & Feedback	X			
Conflict Resolution	X			
Oral and Written Proficiency	X			

PHASE III NUCLEAR ENGINEER				
Advanced Position Specific Qualifications and Independent Proficiency				
ACTIVITIES	TVAN	FPG	TPS	RSO&E
Design Discipline Quals -Nuclear				
Probabilistic Safety Assessment Level 1				
Nuclear Specialist Radiation Protection Level 1				
Heat Transfer Qualification				
Hydraulic Qualification				
Sr Engr Quals				
Prep and Review 50.59 Evals				
Revising Licensing Documents				
Root Cause Analysis				
Verification				
Failure Modes and Effects				

TENNESSEE VALLEY AUTHORITY

ENGINEERING GRADUATE PROGRESSION PROGRAM

CHEMICAL

PHASE II CHEMICAL ENGINEER					PHASE III CHEMICAL ENGINEER				
Position Specific/Discipline Training and Qualifications					Advanced Position Specific Qualifications and Independent Proficiency				
ACTIVITIES	TVAN	FPG	TPS	RSO&E	ACTIVITIES	TVAN	FPG	TPS	RSO&E
GENERIC					**GENERIC**				
General construction specs				X	Root Cause Analysis				
Communication skills (e.g. presentations, conflict resolution, and technical writing)				X	Review Bids and award contract				X
Job specific software				X	Lead joint project team				X
Walkdowns/site visits (Optional)				X	Serve as technical lead on small/medium size project				X
Initial Schedule Development				X	**Developmental work assignments**				X
Compile Preliminary Engineering Study w/Cost Estimates				X	**Group/discipline specific qualification cards as applicable**				X
Procurement Support/Contract Administration									
Write Equipment and Material Specification				X					
Initiate requisition				X					
Coordinate/attend site kickoff meeting with vendor (Optional)				X					
Review and approve contract drawings				X					
Review/prepare process flow diagram and description				X					
Review/prepare Heat & Material Balances				X					
Review/Develop Piping and Instrumentation Diagrams (P&ID's)				X					

PHASE II CHEMICAL ENGINEER (continued)					**PHASE III CHEMICAL ENGINEER**
Position Specific/Discipline Training and Qualifications					Advanced Position Specific Qualifications and Independent Proficiency
ACTIVITIES	TVAN	FPG	TPS	RSO&E	
Attend Project Management Process Orientation				X	
Review detailed drawings on project				X	
Prepare project schedule using Microsoft Project				X	
Review General Arrangement drawings on project				X	
Review project cost estimate of major project				X	
Attend RM Business Process Orientation				X	
Attend Work Agreement Process Orientation				X	
Attend Environmental Engineering Services Procedures and Processes Orientation				X	
Attend Business Development Training				X	
Attend Customer Relations Training				X	
Attend TVA System Orientation				X	
Attend Work Agreement Process Orientation				X	
Attend Bid & Proposal Center Orientation				X	
Developmental work assignments				X	
Demonstrated Discipline Skills				X	
Chemical Design Activities				X	
Root cause analysis				X	
Failure modes and effect analysis				X	

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ENGINEERING GRADUATE PROGRESSION PROGRAM

ENVIRONMENTAL

PHASE II Environmental					PHASE III Environmental				
Position Specific/Discipline Training and Qualifications					Advanced Position Specific Qualifications and Independent Proficiency				
ACTIVITIES	TVAN	FPG	TPS	RSO&E	ACTIVITIES	TVAN	FPG	TPS	RSO&E
GENERIC					**GENERIC**				
General construction specs	X		X	X	Root cause analysis	X		X	
Failure modes and effect analysis	X		X		Lead joint project team	X			X
Communication skills (e.g. presentations, conflict resolution, and technical writing)	X		X	X	Serve as technical lead on a small/medium size project	X		X	X
Job specific software	X		X	X	Independent qualified reviewer	X			
Walkdowns/site visits	X		X	X	Revising licensing/regulatory documents	X			
ALARA job planning	X				Independent Verification	X			
Prep and review a 50.59 evaluation	X								
Checking	X		X	X					
Review a design standard or guide	X		X	X	Review Bids and award contracts	X		X	X
Initial Schedule Development	X		X	X	**Developmental work assignments**	X		X	X
Procurement Support/Contract Administration					**Group/discipline specific qualification cards as applicable**	X		X	X
Write Material Specification	X		X	X					
Initiate requisition	X		X	X					
Coordinate/attend vendor kickoff meeting	X			X					
Review and approve contract drawings	X		X	X					
Project Development									
Compile Preliminary Engineering Study w/ Cost Estimates	X		X	X					
Design Calculations									
Prepare calculations per procedures				X					
Open channel flow weir design				X					
Inspections									
Phase I site assessment				X					
Training commensurate with Phase I site assessment				X					
Environmental Activities									
Developmental work assignments	X		X	X					
Demonstrated Discipline Skills				X					
Root cause analysis				X					
Failure modes and effect analysis				X					

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ENGINEERING GRADUATE PROGRESSION PROGRAM

WATER RESOURCES

PHASE II WATER RESOURCES					PHASE III WATER RESOURCES				
Position Specific/Discipline Training and Qualifications					Advanced Position Specific Qualifications and Independent Proficiency				
ACTIVITIES	TVAN	FPG	TPS	RSO&E	ACTIVITIES	TVAN	FPG	TPS	RSO&E
GENERIC					**GENERIC**				
Communication skills (e.g. presentations, conflict resolution, and technical writing)				X	Water Resources Engineering Project Planning				X
Job specific software				X	Advanced Modeling				X
Preliminary project planning and development				X	Data Systems				X
Demonstrated Discipline Skills					Operations Evaluation				X
Hydrology				X	Team Exercise				X
Meteorology				X	Tradeoff Evaluations				X
Statistics				X	Training Module Development				X
Open Channel Hydraulics				X	River Forecasting				X
Surface Water Quality				X					
Fluid Modeling				X					
Uncertainty Analysis				X					
Pipe/Valve/Pump/Orifice Sizing Calculations				X					
Programming				X					
Mechanical Components				X					
Operational objectives, policies, and requirements				X					
Operational practices				X	**Developmental work assignments**				X
Contract/Purchase Administration				X	**Group/discipline specific qual cards as applicable**				X
Root cause analysis				X					
Failure modes and effect analysis				X					
Project Implementation Support				X					
Design Support				X					
Developmental work assignments				X					

TVA ENGINEERING GRADUATE PROGRESSION PLAN (IPP)
IPP ALIGNMENT BY STRATEGIC BUSINESS UNIT

FPG (12)	TVAN (17)	TPS (14)	RSO&E (10)
Elect Eng Des F&H	Eng Mech, Gen	Elect Engr Gen	ElecEngrD
Elec Eng Metr F&H	Elect Eng Des NUC	Elect Engr Pwr	CvEngG(RG)
CvEngDFH	I&C Engr Des NUC	Elect Engr Plan	CvEnWR(RG)
Instr Engr F&H	Chem Engr NUC	Elect Engr Tele	CivilEngrD
Mechan Eng Gn F&H	I&C En Mnt/ MdPNUC	CvEnG	I&CEgDes
Sys Eng MulFosF&H	CvEngDNUC	CvEnDTSTPS	ChEng,GRG
Metallur Engr F&H	Elec Eng Mt /MdNUC	Elec Eng Des Tr	CEDesignRG
SysEngElec & I&C	Indus Engr Nuc	Elec Eng Mt/Md	Env Eng Gen RG
SysEngFOPS	Mech Eng M/MPl	Civil Engr, S&Env	MechEngD
Mech Engr Des F&HP	Nuc Engr Des NUC	CivilEngrS	MechEngWR(RG)
SysEngMec	Env Eng Gen NUC	ElecEngrAREA	
SyEgCbTurb	SysEngrGnNSSSNuc	CEMtnTPS	
	Syst Engr ElecNuc	Env Eng Gen	
	Syst Engr I&C Nuc	Syst Engr Trans	
	Mech Eng Des NUC		
	Sys Engr, Comp		
	SysEngBOP		

APPENDIX C (continued)

TVA ENGINEERING GRADUATE PROGRESSION PLAN

IPP ALIGNMENT BY ENGINEERING DISCIPLINE

Civil Engineer(11)	Chemical Engr(1)	Electrical Engr(12)	I&C Engr (4)	Mechanical Engr(8)	System Engr (11)	Nuclear Engr (1)	Environmental Engr(3)	Water Resources Engr(2)
Eng Mech, Gen (TVAN)	ChEng,GRG (RSO&E)	Elect Engr Gen (TPS)	I&C Engr Des NUC (TVAN)	Indus Engr Nuc (TVAN)	Sys Eng MulFosF&H (FPG)	Nuc Engr Des NUC (TVAN)	Env Eng Gen (TPS)	CVEnWR(RG) (RSO&E)
CvEnG(TPS)		Elect Engr Pwr (TPS)	Chem Engr NUC (TVAN)	Instr Engr F&H (FPG)	SysEngrGnNSSS Nuc (TVAN)		Env Eng Gen NUC (TVAN)	MechEngWR(RG) (RSO&E)
CvEngG(RG) (RSO&E)		Elect Engr Plan(TPS)	I&C En Mnt/ MdPNUC(TVAN)	Mechan Eng Gn F&H (FPG)	Syst Engr ElecNuc (TVAN)		Env Eng Gen RG (RSO&E)	
CvEngDNUC (TVAN)		Elect Engr Tele(TPS)	I & CEgDes (RSO&E)	Mech Eng M/MPl(TVAN)	Syst Engr I&C Nuc (TVAN)			
CvEngDFH (FPG)		Elect Eng Des NUC (TVAN)		Mech Eng Des NUC (TVAN)	Syst Engr Trans(TPS)			
CvEnDTSTPS (TPS)		Elect Eng Des F&H (FPG)		Mech Engr Des F&HP (FPG)	Sys Engr, Comp (TVAN)			
Civil Engr, S&Env (TPS)		Elec Eng Des Tr(TPS)		Metallur Engr F&H (FPG)	SysEngBOP (TVAN)			
CivilEngrD (RSO&E)		Elec Eng Mt /MdNUC (TVAN)		MechEngD (RSO&E)	SysEngElec & I &C (FPG)			
CivilEngrS (TPS)		Elec Eng Mt/Md (TPS)			SysEngFOPS (FPG)			
CEDesignRG (RSO&E)		ElecEngrD (RSO&E)			SysEngMec (FPG)			
CEMtnTPS (TPS)		Elec Eng Metr F&H (FPG)			SyEgCbTurb (FPG)			
		ElecEngrAREA (TPS)						

APPENDIX D

TVA Engineering Review Board Guidelines

Requirements: In accordance with the TVA EGPP, each engineering unit is responsible for establishing a consistent approach to ensure that each graduate is provided the opportunity to complete the requirements on their IPP while performing work as an engineer for TVA. Each candidate must become proficient in performing these tasks and meeting the requirements such that they can work independently. All training must be completed with a passing score and documented in ATIS. Demonstrated proficiency skills must be demonstrated and signed off by a senior engineer or higher level engineer or manager, proficient in that skill. The skill attainment must be documented (issued calculation, system description, test report, etc.) If a qualification card is part of the IPP, it must be completed. The engineer's immediate supervisor is responsible for keeping a "folder" with necessary documentation to support the individual's progression.

Process for convening the TVA EGPP Engineering Review Board (ERB)

1. The Level A Engineer's supervisor compiles training and performance records and compares the individual's records to the appropriate IPP to ensure that all requirements are met.

2. The supervisor requests that the Engineering unit's Senior Manager or designee convene the Engineering Review Board. This documents the potential effective date of reclassification (typically the start of the first pay period after the supervisor requests to convene the ERB).

3. The Engineering Unit's Senior Manager coordinates with the responsible HRC, who works with the HR Service Area Manager and/or EA Central Office to identify the necessary participants, establish the time and location, and work with the appropriate HRC to notify the participants. All meetings will be face-to-face.

4. Participants in the meeting will be (as a minimum) as follows:
   - Engineering unit's Senior Manager
   - Engineer's Manager
   - One manager in the discipline of the engineer
   - One Engineering Manager from another TVA organization
   - Engineering Association Representative
   - Human Resource Consultant
   - TVA Technical Training Representative
   - Experts in specialty fields may be called in to ascertain qualifications

5. The engineer's supervisor will present the completed IPP and notebook of other pertinent information to the ERB. Experts in specialty fields may be called in to assess certain qualifications, if necessary.

6. The ERB will review the documentation to ensure the engineer has completed the requirements, demonstrated the necessary knowledge, skills and experience to work independently as a Senior Engineer at TVA. Additional information may be requested or reviewed as necessary to ensure that the graduate meets all requirements. Oral examinations of the graduate may be requested as appropriate.

7. After the Board has certified that the engineer has met the requirements to work independently, they will recommend that the Engineer be reclassified as a Senior Engineer. The decision of the Board must be unanimous.

8. Once satisfied, the ERB will sign off on the reclassification (see ERB attachment 1) (effective date is typically the start of the first pay period after the supervisor requests to convene the ERB).

9. The HRC will ensure that the necessary documentation and signatures are obtained to process the reclassification

10. If the reclassification is not approved, the ERB will document which IPP components or performance measures remain to be met. Within one week following the ERB meeting, the engineer's supervisor will discuss these measures with him or her and, together, they will identify specific ways to meet those requirements. Engineers will not be promoted to Senior Engineer until approved by the ERB.

Guidelines for conducting an Engineering Review Board Meeting:

The supervisor and/or employee should prepare a well organized book notebook containing examples of completed work, course records, and other pertinent information to be examined by the ERB. For consistency across TVA organizations, the notebook should use the following items as tabs. The tabs also serve as a topical agenda items.

1. Introduction – identify the engineer who has been recommended for reclassification with a brief summary of background
    - Position and location of the engineer
    - Graduate of (school) in (year)
    - Post graduate work/degree
    - Previous outside engineering work experience (if applicable)
    - TVA Hire Date & organizational assignments
    - Supervisor should explain why the candidate is being recommended for reclassification to senior level

2. Review Individual Progression Plan (IPP) in detail
    - usually lead by the supervisor
    - prepared in advance – organized and complete
    - 100% of activities are completed or otherwise satisfied in accordance with these guidelines
    - copies or pertinent information provided to ERB members

3. Training Report from TVA Automated Training Information System (ATIS) for total training

4. Related Qualification Cards

5. Identify equivalencies and/or exemptions to the IPP requirements (on ATIS report and on appropriate form)
    - Equivalencies (form TVA 17819A)
    - Exemptions (form TVA 17819B)

6. Related work experience (FAW, DCN, Calculations, Systems Notebook, etc)

7. Performance Reviews - In addition to the technical and administrative requirements identified in the IPP, the ERB should consider the overall performance of the individual during the progression period, including the Performance Competencies below. These elements are important to the ultimate success of any Level B engineer. We recommend that you include as many of the Performance Competencies as possible in the Level A employees PR&D. The employee's performance should be documented in the EA IPM process for the duration of level A work performed, and the supervisor should be prepared to articulate the candidates abilities as they relate to the following Performance Competencies (as defined in the TVA EA IPM process, TVA Form 17437).

- Teamwork
- Continuous Improvement/Innovation
- Flexibility
- Customer Focus
- Functional/Technical Skills
- Safety/Health
- Communication (oral and written)
- Planning and Organizing
- Judgment/Decision Making
- Leadership (if appropriate)

TENNESSEE VALLEY AUTHORITY

ENGINEERING GRADUATE PROGRESSION PROGRAM

ENGINEERING REVIEW BOARD APPROVAL FORM (ERB Attachment1)

Date: _____

NAME: _____ **ORGANIZATION:** _____

The Engineering Review Board met on (date) to review the documentation that Mr./Ms._____ has satisfactorily completed the requirements, demonstrated the necessary knowledge, skills and experience to progress to the B-Level _____Classification.

The Board determined after careful review that Mr./Ms. _____ has satisfactorily met all requirements specified in his Individual Progression Plan (IPP), as required by the (SBU NAME) Engineering Graduate Progression Plan (EGPP). Mr./Ms. _____ has also performed satisfactorily in all aspects of his position as an Engineer for TVA. It is therefore recommended by this Board that Mr./Ms._____ _____ be reclassified to the B-Level _____Classification effective the date management deems appropriate.

APPROVED SEQUENTIALLY BY INDIVIDUAL BOARD MEMBERS:

Engineer's Manager Name & Title	Date	Engineering Unit Senior Manager Name & Title	Date
Engineering Discipline Manager Name & Title	Date	Engineering Manager from another TVA Organization & Title	Date
Engineering Association, Inc Representative & Title	Date	TVA Technical Training Representative & Title	Date
Human Resource Consultant Name & Title	Date		

APPENDIX E

Equivalency and Exemption Guidelines.

Objective: The TVA Progression Plans are designed to align TVA's technical employees with industry standards and ensure that they acquire a broad spectrum of skills consistently across all organizations, leading to a fully functional, independent senior level employee. Required activities are identified by position and Individual Progression Plans (IPP) are assigned to individuals by their supervisor. By far, the majority of activities will be completed by individuals as designed, and the need for exceptions should be infrequent. It is our goal to approach situations involving "exemptions and equivalencies" in a fair and consistent manner using these guidelines.

Definitions:

Assessment – The process of evaluating and comparing one learning activity to another learning activity or the training, knowledge and experience an individual has already obtained. The assessment results may be used for either of the following situations:

Equivalency (unlisted training course for a required training course) **-** An employee may request that a course other than those documented in the IPP be substituted for a course listed in the IPP. Employees requesting an equivalency may submit a Course Equivalency Form along with any appropriate documentation (lesson plans, ATIS numbers, course brochures, etc.) for review by their management team. Requests for the establishment of course equivalencies (which are expected to be very few in number) will be reviewed by TVA TT. Form TVA 17819A, Course Equivalency Form, is used to obtain approval and document these decisions in ATIS.

Exemption (Note: for ATIS purposes, this is listed as an Exemption and may affect a course, task or instruction) **-** Generally, all required progression activities identified in the IPP must be completed to allow a candidate to progress to the senior level. In rare circumstances, it may become necessary for the SBU to substitute one activity for another. The employee's management team may approve a substitution for a required activity if, by assessing an individual, the first line manager determines that the progression candidate possesses the knowledge, skills or abilities that would be gained by completing a specific activity. For instance, if an Electrical Engineer has been working with "relays" for a year or so, and made substantial progress, it would be redundant to send that employee to a fundamental "relays" class. In this situation, the supervisor and SBU Progression senior manager will be required to document the approval of the "exemption" in ATIS using Form TVA 17819B, Activity Exemption Form. ATIS would indicate that the learning activity was satisfied by the exemption, along with an appropriate justification. The ERB will require an appropriate justification prior to approving reclassification to senior level. (Note: Course for course substitutions must follow the "equivalency" process above rather than "exemption" process)

Pre-approved Activity: In the event that an organization desires to substitute a non-listed activity for a required activity, it is recommended that the SBU pre-approve the activity exemption to ensure that expectations are clear. The pre-approval should be documented using the appropriate form. The pre-approval should be noted in the comments section of the form, and the activity will not be entered into ATIS until it has been successfully completed.

APPENDIX E

Equivalency and Exemption Process:

1. Substituting an unlisted training course for a training course required by the EGPP:
Employees requesting an equivalency may submit a form TVA 17819A, Course Equivalency Form along with any appropriate documentation (lesson plans, ATIS numbers, course brochures, etc.) for review by their management team. Course equivalencies are expected to be few in number and infrequently utilized. To establish an equivalency, we must evaluate the terminal and enabling objectives of the original course in comparison with the learning objectives of the requested equivalency. Since training courses may be provided from a number of sources, this review may require input from subject matter experts, vendors, or training consultants.

The TVA training consultant review will help ensure that the activities are equivalent and if that equivalency should be applied to others in the TVA with the same requirement. There will be cases where the supervisor may be the most knowledgeable of a particular subject matter, and we would rely heavily upon that recommendation. Likewise, there will be cases where the training consultant or vendor may be the most knowledgeable of the training content. These equivalencies should be documented in ATIS using form TVA 17819A and the employee's IPP should reference the equivalency.

2. Granting a "Exemption" for completion of a learning activity (course, task or instruction) based on work experience (inside or outside TVA):
In situations where an employee has previously obtained work experience **or relevant coursework for advanced education (beyond the bachelor degree level) at an accredited institution completed with a "B" or better grade,** that may be considered in lieu of a required course, task or instruction, the SBU can grant an "exemption". . Form TVA 17819B, Activity Exemption should be used for documentation. However, the employee may be required to demonstrate proficiency in the requirements, as deemed necessary by the supervisor and/or Senior Manager for each SBU.

These situations will be reviewed closely by the review board at time of proposed reclassification to senior level, so the documentation should be clear and unambiguous. Progression depends upon a number of factors, including completion of required activities, individual performance, experience opportunities, schedule of available training courses, and the demands of ongoing work performed by the employee.

Each employee is responsible for providing appropriate documentation of any experience outside of TVA to the satisfaction of the supervisor and Senior Manager. This could be in the form of official performance reviews, calculations, or project approvals from other companies. The supervisor is responsible for ensuring that the documentation is sufficient to warrant an exemption. The Progression Senior Manager must approve all substitutions. Questions regarding documentation may be directed to your human resource consultant. The supervisor and employee should assess the employee's work experience and document the required activities that have been met on the employee's IPP.

3. A level A employee transfers to a different level A position in TVA:
An assessment of the transferring employee's IPP will be necessary to determine the completed progression activities which apply toward the IPP requirements for the new position. The IPP requirements of the new position must be satisfied in order to progress to the senior level. The assessment will be conducted by the receiving organization. Since the IPPs are position specific, there is a good chance that some of the required activities previously completed will not satisfy the requirements of the new job.

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ENGINEERING GRADUATE PROGRESSION PROGRAM

TVA Progression Plans - Course Equivalency Form

NOTE: Please use official Form TVA 17819A for documenting Course equivalencies

This form documents the assessment of a TVA Progression Plan course equivalency request.

Last Name _____ First Name _____ Employee ID _____ ☐ FPG ☐ RSO&E ☐ TVAN ☐ TPS ☐ OTHER

Position: _____

Course Required by Program

ATIS No. _____ Hours _____

CourseTitle/Description _____

Description of Course Submitted for Equivalency (attach supporting documentation, if applicable)

Course _____ Hours _____

ATIS No. _____ Institution (if applicable) _____

Description _____

_____ _____ _____ _____

Employee Signature Date TVA Technical Training Concurrence Date

_____ _____ _____ _____

1st Line Manager Approval Signature Date Name of individual entering information into ATIS Date

_____ _____

SBU Progression Sr. Manager Approval Date

Mail completed form to SBU ATIS Administrator.

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ENGINEERING GRADUATE PROGRESSION PROGRAM

TVA Progression Plans - Activity Exemption Form

NOTE: Please use official Form TVA 17819B for documenting exemptions

This form documents the assessment of a course, task, or instruction currently required by the TVA organization or any of the TVA SBU's to determine if an exemption of the activity is authorized.

Last Name _____ First Name _____ Employee ID _____ ☐ FPG ☐ RSO&E ☐ TVAN ☐ TPS ☐ OTHER

Position: _____

Activity Required by Program

ATIS No. _____ ☐ Course ☐ Task ☐ Instruction Hours _____

Activity Title / Description _____

_____

Exemption Request (attach additional information as needed)

Justification:
Description _____

_____

_____

_____ _____
Employee Signature Date

_____ _____
1st Line Manager Approval Signature Date

_____ _____
SBU Progression Sr. Manager Approval Signature Date

Mail the completed form to the Employee Service Center (ESC). The progression activity will be entered into ATIS as an exempt/waived requirement. The justification listed above along with the name of the approving supervisor and the date approved shall be entered into ATIS.

_____ _____
Name of individual entering exemption into ATIS Date

APPENDIX F
EGPP – Revision Control Plan
Adopted 10/14/2003

Levels of Revisions:

1. Correction to existing IPP's – each SBU representative is responsible for ensuring that their IPP's are accurate and up to date. Examples include corrections to ATIS numbers, course titles, plan document grammar, etc.
   Approval required: SBU EGPP Representative

2. Minor change – relatively minor adjustments, including adding or deleting items from IPP's that do not violate the requirements and/or intent of the TVA EGPP plan documents, but that are needed to optimize the SBU plan. This change level does not preclude a new revision level assignment as appropriate.
   Approval required: SBU Primary EGPP Representative

3. Substantial change to SBU EGPP documents that is inconsistent with the TVA EGPP plan document. This level of change requires a new revision level assignment, and appropriate storage in the EGPP Business Support Library.
   Approval required: TVA EGPP Team

4. Any change to the TVA EGPP plan document. Requires a new revision level assignment.
   Approval required: TVA EGPP team & TVA Engineering Peer Team (as deemed appropriate by the TVA EGPP team.

Revisions Tracking Summary- APPENDIX G

Revision 1 - June 1, 2004 - Summary of Changes

- Add appendix D - TVA EGPP Engineering Review Board Guidelines & Approval Form
- Add appendix E - TVA EGPP Equivalency and Exemption Guidelines
- Add appendix F - TVA EGPP Revisions Control Plan

- Delete duplicate activity for "Initial Schedule Development
- EI&C IPP - Change "National Electric Code" to "National Electric Code or National Electric Safety Code"
- Delete "Job specific Environmental Training" from Systems Engineer IPP
- Add "Human Factors Engineering" requirement to Systems Engineer IPP
- Removed Initial Schedule Development duplicate from EI&C, Mech and Chemical IPP's

R-1 TPS changes only:

- Delete requirement for "Coordinate/attend site kickoff meeting with vendor" in all IPPs
- Delete requirement for "Lead joint project team"
- Delete requirement for "Revising licensing/regulatory document
- Delete requirement for "Perform Factory Acceptance Test" in EI&C IPP

R-1 RSO&E changes only:

- All Individual Progression Plans - Phase I - Electric Utility System Operations course -- make optional
- Electrical/Mechanical/Civil Design
    - Root cause analysis -Change to Phase II requirement
    - Failure mode analysis -Change to Phase II requirement
    - Revising licensing/regulatory documents - delete
- Environmental/Chemical
    - Root cause analysis - Change to Phase II requirement
    - Failure mode analysis - Change to Phase II requirement
    - Add new IPP for Systems Engineer.
- Water Resources

R1 Correction – Added Water Resources IPP 1/6/05

-

R-2 - September 2005 - Modify TVA Plan document to reflect joint administration with the Engineering Association, per Framework Agreement reached on February 17, 2005

Suggested Comments for Employee Performance Appraisals - APPENDIX H

Comments to support ratings on employee progress on his/her IPP shall be consistent with the rating.

Exceeds Expectations
(Name) has made exceptional progress in his/her Individual Progression Plan, under the Engineering Graduate Progression Program (EGPP). He/she has exceeded expectations in completion of training and developmental work assignments. Specifically, (give examples).

Satisfactory
(Name) has made satisfactory progress in his/her Individual Progression Plan, under the Engineering Graduate Progression Program (EGPP). He/she has met expectations in completion of training and developmental work assignments. Specifically, (give examples).

Marginal/Unsatisfactory
(Name) has made less than satisfactory progress in his/her Individual Progression Plan, under the Engineering Graduate Progression Program (EGPP). He/she has met some expectations in completion of training and developmental work assignments. Specifically, (give examples). (Name) must focus more time and energy on his/her professional development in order to get back on track.

APPROVED BY THE TVA ENGINEERING GRADUATE PROGRESSION PROGRAM COMMITTEE:

TVA NUCLEAR	Larry S. Bryant, General Manager, Engineering and Technical Services	8-31-2005 Date
FOSSIL POWER	Richter E. Wiggall, Mgr., Component Systems & Engineering	8/31/05 Date
TPS	Sheliah Baker, Mgr., Project Support Services	8/31/05 Date
RSO&E	Marvin Cones, Mgr., Dam Safety & Design Engineering	8/31/05 Date
Engineering Association, Inc	Gay Henson, Valley-Wide President	8-31-05 Date
Engineering Association, Inc	Steve A. Locke, TVA EA, Inc	8/31/05 Date
TVA Labor Relations	E. Richards Brabham, Jr., Labor Relations Specialist	8/31/05 Date
Technical Training	Greg Lewis, Mgr., Production Training	8-31-05 Date
TVA Human Resources	Michael D. Pope, EGPP Facilitator	8/31/05 Date

Rev. 2 9/01/05