

# WILLIAM DUKE BELL III

## Senior Consultant, Project Controls



With over 38 years of experience in the delivery of major assets including the construction, modification and maintenance of power generating and transmission facilities, Bell now serves as the founder and owner of ENVOI Project Solutions LLC.

ENVOI Project Solutions provides consulting, advisory and management support for owners and contract firms alike seeking to enhance their programs and gain efficiency in their major capital asset delivery systems.

### EXPERTISE

- ▶ Portfolio / Program Management
- ▶ Project Management and Controls
- ▶ Estimating and Scheduling
- ▶ Risk Management
- ▶ Contract Management

**35+** YEARS OF EXPERIENCE

### EXPERIENCE

Bell previously worked with Burns & McDonnell as a Program Manager / Project Controls Director and has most recently managed a PfMO and Transmission Construction Development Program with Entergy's Transmission organization. Just prior to that assignment, he spent 7 months developing a PMO Program for Hydro One's Transmission organization. He also acted as the Project Controls Director on the Darlington Reactor Refurbishment Oversight Team and in early 2015, he completed a parallel assignment as Integration Manager on the Technology Enablement project for TransCanada Pipeline (Oil and Gas Linear Project Management Tools).

In his original assignment/position at Burns & McDonnell, he served as Program Manager for the Bellefonte Nuclear Plant Project Controls Program. Prior to Burns & McDonnell, his most recent project controls and project management experience was with the Shaw Group as the Project Controls Manager for Vogtle Units 3 & 4 in eastern Georgia.

His career began in the design of piping, pipe supports and process instrumentation and included experience in field engineering and construction management positions. In the later years of his career, he moved into the project controls and project management areas of operating power generation stations and worked on several different types of engineering, construction and infrastructure projects. These included an SGR, nuclear plant up-rate, project management for several major plant modifications as well as IT/IS projects and other operations infrastructure.

Other experience includes evaluating and performing due diligence as the owner on multiple power generation technologies, developing project controls and engineering / construction performance systems and developing project estimates, schedules, risk and cost certainty contingencies and budgets. He is also experienced in developing engineering and construction specifications, proposals and RFPs and has negotiated and managed contracts of various types.

- ▶ Portfolio / Program Management and Project Controls Director and with experience in consulting, megaproject and program oversight, Program Management Organization (PMO) and Portfolio Management Organization (PfMO) development, megaproject Project Controls program and system development and management, and hands on Project Controls management and work of all PC disciplines (cost, schedule, estimating, earned value, change control, risk management and reporting). Experienced with system integrations of many types and many different tool sets.
- ▶ Individual Project Management, Project Controls management, and Contract Management experience on various types of projects. Experience managing construction contracts, service contracts, fabrication contracts and some software development contract experience.
- ▶ Work on and complete understanding of engineering specifications, design documentation, industry codes and standards, NRC regulations, QA program requirements and licensing / permitting requirements for construction projects.



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- ▶ Experienced in the development, maintenance and use of CMMS (Computerized Maintenance and Management Software). Also worked on equipment reliability improvement projects evaluating equipment maintenance and surveillance cycles. Software design and development experience with database and data management focus.
- ▶ Significant experience in the use of Primavera products including current version 15.2 and the Web EPPM. Have also utilized Microsoft Project and Open Plan when necessary. Have been involved with evaluations of other scheduling software including Artemis. Also experienced in the use of Acumen for schedule analysis as well as development of several schedule quality control tools.
- ▶ Implementation experience and familiarity with Project Controls suite integrations including Cost Management (EcoSys and Prism), several different Risk Management tools, integration with SAP, Maximo, PowerPlan and other asset and financial management tools.
- ▶ Intimately familiar with the Microsoft Office suite of products including Microsoft Access. Microsoft Expert classes were completed during a recent return to college to expand educational perspectives.
- ▶ Experienced in the development and usage of WBS, OBS, Cost Breakdown Structures, Coding structures and Resource structures for detailed schedules of all types. Also experienced in the use of Earned Value Management and the inclusion of the analysis into forecasting processes.

## PROFESSIONAL EXPERIENCE

### **January 2018 - Present, Founder and Owner - ENVOI Project Solutions**

Advising, consulting and managing the delivery of major capital assets across several industries, focused mainly in the Energy sector. Provides expertise in Project Management, Project Controls, Finance, Estimating, Cost and Schedule integration, Forecasting, Contract development and management. Also provides expertise from experience in several types of industrial mega-projects, energy client program management and energy client portfolio management. Experience as owner, contractor and consultant with proven track record of delivery in all facets of project initiation, funding, development, construction and commissioning.

### **July 2016 – January 2018, Program Manager for the Entergy Alliance Partnership establishing the PfMO and Transmission Construction Development Program with Entergy's Transmission organization.**

Managed the evaluation and development team providing consulting and direct program design development services for a customized project portfolio management and performance program. This program is being developed to support all Portfolio Management aspects of the Entergy Transmission Project Performance and Project Management program including corporate process development, data management, asset valuation and portfolio reporting. Worked with Entergy finance, project delivery and construction management personnel daily including engineering, procurement and construction discipline SMEs to incorporate the industry's best practices into the product's functional design. Managed the Facility Study and overall Project Construction program side of the Alliance Partnership as well.

### **January 2016 – July 2016, Program Manager for the Hydro One PMO development project in charge of Project Controls, Scheduling, Cost, Estimating, Change Control, Reporting, Earned Value and Database management for implementation.**

Manage the evaluation and development team providing consulting and direct program design development services for a customized project portfolio management and performance program. This program is being developed to support all aspects of transmission and distribution project performance and project management including corporate data management, asset valuation and reporting. Work with Hydro One finance, project delivery and construction management personnel daily including engineering, procurement and construction discipline SMEs to incorporate the industry's best practices into the



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product's functional design. This project is performed in parallel with the oversight project listed below at Darlington Nuclear Station.

## **February 2015 – September 2015, Integration Manager for the Technology Enablement Project with TransCanada Pipeline.**

In parallel with oversight project at Darlington, currently managing the development team consulting and providing design development services for a customized construction management software program to support oil and gas pipeline project management. Work with TransCanada construction management personnel daily including construction discipline SMEs to incorporate the industry's best practices into the product's functional design. Interface daily with the software developers to ensure clear and concise direction is being given and utilizing best practice techniques for tracking the development from inception through testing.

## **February 2013 – Present, Project Controls Director for Oversight team on the Darlington Reactor Refurbishment project.**

Presently serving as the Project Controls Director for the Oversight Team assigned to the Darlington Nuclear Station Reactor Re-tube and Refurbishment project. Responsible for evaluating and reporting on the performance of the Project Controls' scheduling, cost and estimating programs and related personnel acting in the interest of OPG. Work closely with members of the site Oversight Team to develop tools and evaluation techniques to aid in providing accurate data for analysis. Daily interface with the OPG team is necessary in this position and in this role act as advisor for all areas of Project Controls, Project Management and the Senior Management team. Assurance reports are also generated to support the OPG Corporate organization as necessary.

## **November 2010 – October 2013, Project Controls Manager for Bellefonte Unit 1 & Common.**

Responsible for establishing and managing the Project Controls' scheduling, cost and estimating programs and related personnel acting in the interest of TVA (owner's representative). Worked closely with members of the site Project Management, Engineering, QA and Construction teams to develop, maintain and implement the Project Controls system to ensure that the projects activities are performed in accordance with contractual commitments. Establishment and coordination of the change control programs for the site was also included in this scope of work. Responsible for creating project estimates, converting them to budgets and setting up the cost controls program. The team was responsible for re-estimating the overall cost of the project for the express purpose of determining project viability. Establishment and conduct of the Risk Management and Performance programs for Bellefonte also fell under our purview as well. Established, maintained and updated the performance indicators for the project as well. Our organization established and conducted all schedule and cost meetings as well as providing the Project Review Meetings (PRM) and Plan of the Week (POW) Reports, Bellefonte corporate monthly reports and participated in corporate resource forecasting for TVA.

## **August 2008 – November 2010, Project Controls Manager for Vogtle Electric Generating Facility Units 3 & 4.**

Responsible for establishing and managing the Project Controls' scheduling, cost programs and related personnel for Vogtle AP1000 Units 3 & 4. Work closely with members of Project Management, Engineering, QA and Construction teams to develop, maintain and implement the Project Controls system to ensure that the projects activities are performed in accordance with contractual commitments. Converted project estimates to budgets and setup controls program. Also initiated trend and change control programs for the project. Responsible for providing the monthly corporate project status and financial reports. Established and conduct all Construction, Engineering, Procurement, Subcontract and QA planning / interface meetings including the Plan of the Day.



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## **January 2008 – August 2008, FP&L, Homestead, FL, Cost Engineering Supervisor**

Contractor responsible for establishing the cost control process and procedures for the Extended Power Uprate project at Turkey Point Nuclear Station. Duties include setting up the Cost Breakdown Structure for tracking the project as well as beginning development of a new cost tracking structure to be used for future EPC work associated with FPL. Also finished development of the Program Estimates, Program Schedules and the Level One Project Budget. Also prepared a system of reporting for scope changes, trends, project budget variances, and project risks.

## **October 2005 – January 2008, SCE&G, Jenkinsville, SC, Project Controls Lead (was also acting Construction Manager until August 2007)**

Responsible for supporting the evaluation of technologies, negotiating and managing contracts, and developing the construction and project controls organizations for the new generation of nuclear power plants for the New Nuclear development team at SCE&G. Responsible for the development of the overall project schedule for a two unit nuclear construction project including the development of the preliminary budget for the same. Developed and currently maintaining performance indication tools and databases for the New Nuclear Project Controls Program. More recently the focus has been on developing the overall project controls plan for the EPC contract scenario proposed by the consortium of Westinghouse and Stone & Webster. This responsibility also includes negotiating the portions of the contract associated with that plan. Also working with Bechtel on the COL application development phase of the project focused on schedule and cost.

## **January 1997 – October 2005, SCE&G, Jenkinsville, SC, Project Controls Lead**

Engineering Services Projects Lead providing scheduling and budgeting for all modification projects to the operating facility. Early in this period provided supervision and development of the resource scheduling effort for the Design Engineering department. Worked closely with maintenance and modification planners including health physics and operations to support field installation planning and scheduling. Plant Health Committee formation during this period had to be supported by this effort. Served as the Plant Health Committee Administrator due to familiarity with modification planning and scheduling, project estimation, project cost-benefit evaluations, and project approval processes. Provided Project Management support and oversight of contractors during outages to ensure compliance with specific project schedules and budgets. Also initiated the majority of modification related purchase orders and change orders to those modification purchase orders with the exception of the larger projects having individual project managers. Project Controls lead for the 'A' Loop Reactor Vessel nozzle repair during this same period. Supported a strategic initiative project to develop business tracking and performance measurement tools including performance indicators for projects. Worked with the equipment reliability improvement team to help evaluate equipment maintenance scenarios.

## **January 1992 – January 1997, SCE&G, Jenkinsville, SC, Project Controls Lead**

Lead for Project Controls on the combination Steam Generator Replacement and Plant Uprate projects. Provided leadership for the project scheduling and project budget / costing effort for both projects. Responsibilities included the oversight of the SGR contractor's (Bechtel) project controls process, interfacing with plant outage scheduling organization, schedule development and project controls interface with the replacement SG fabricator (Westinghouse), and contract and schedule development and oversight of other miscellaneous contractors supporting these efforts including PCI and Senior Engineering (now Thermal Engineering International). Provided project management of moisture separator re-heater tube bundle replacements for first phase of SGR project (removal of copper from secondary side of steam generators). Provided project controls support for the warranty repair of the replacement steam generator moisture carryover problem including field supervision of PCI during this process.



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## **April 1988 - January 1992, SCE&G, Jenkinsville, SC, Project Controls Specialist**

Responsible for scheduling and budgeting support of major maintenance and modification projects for the operating facility. Hired due to construction experience for the express purpose of developing program interfaces between project scheduling, project budgeting, project engineering (including procurement engineering), and the modification project implementation group.

## **February 1984 – April 1988, Pullman Power Products, Vogtle Electric Generating Station, Waynesboro, GA, Mechanical Superintendent**

Responsible for small bore pipe and process instrumentation installation (safety and non-safety related). Supervised up to six crews (union scenario) of piping and instrument fitters and welders and four supporting field engineers. Responsible for developing and meeting schedule and installation quotas, acquiring material, coordinating with Quality Assurance and Quality Control, and interfacing with the design and analysis organizations (Bechtel and Westinghouse) supporting the construction efforts. Later was loaned to Georgia Power to coordinate system turnover and startup efforts.

## **March 1981 – February 1984, Pullman Power Products, Vogtle Electric Generating Station, Waynesboro, GA, Lead Pipe Support Field Engineer**

Responsible for engineering support of the pipe support field installation group for large bore and small bore safety and non-safety related piping systems. Interfaced directly with the Bechtel and Westinghouse design organizations on site. Later moved to help develop the process instrumentation installation program. Became the lead field engineer before being promoted to field superintendent.

## **May 1979 – March 1981, Nesco Design Group (contracted to Duke Power), McGuire Nuclear Station, Mooresville, NC, Pipe and Pipe Support Design**

Originally hired to perform vent and drain pipe and hanger design, but was quickly moved to perform NRC Bulletin 79-14 and 79-02 reviews of all seismic piping systems in the plants to support startup. Responsibilities included as-built walkdowns of pipe installation and support locations and evaluation of related plan, isometric and support design sketches to ensure compliance with design and installation tolerances.

## **August 1978 – May 1979, Fluor Daniel Construction Co., V. C. Summer Nuclear Station, Jenkinsville, SC, Pipe and Instrument Design**

Responsible for the design and drafting of small bore piping isometrics (safety and non-safety / seismic and non-seismic) for installation. Completed systems also had to be walked down to document the as-built condition of the piping, tubing and supports.

## EDUCATION

Bachelor of Science – Business Management – Limestone College, Gaffney, SC  
Architectural Engineering – Two Years – Midlands Technical College, Columbia, SC

## PROGRAM / PROJECT WORK HISTORY

- ▶ Entergy PfMO and Construction Alliance Partnership, Entergy LLC, New Orleans Transmission Corporate Office
- ▶ HydroOne Transmission and Distribution PMO Development Project, Hydro One Networks Inc., Toronto Corporate Office



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- ▶ TransCanada Technology Enablement Project, TransCanada Corporation, Calgary Corporate Office
- ▶ Darlington Reactor Refurbishment Project, Ontario Power Generation, Darlington Nuclear Station
- ▶ Bellefonte Reconstruction Project, Tennessee Valley Authority, Bellefonte Nuclear Plant
- ▶ Vogtle AP1000 Units 3 & 4 New Construction, Shaw Group, Vogtle Electric Generating Plant
- ▶ Extended Power Uprate Project, FPL, Turkey Point Nuclear Station
- ▶ New Nuclear Project Development, SCE&G, V. C. Summer Station
- ▶ Plant Health Committee Deployment, SCE&G, V. C. Summer Station
- ▶ Equipment Reliability Improvement Process including Performance Indication Development, SCE&G, V. C. Summer Station
- ▶ 'A' Loop Reactor Vessel Nozzle Repair, SCE&G, V. C. Summer Station
- ▶ 'A' Loop Follow-up ISI Inspection, SCE&G, V. C. Summer Station
- ▶ Service Water Leak Repair, SCE&G, V. C. Summer Station
- ▶ Business Unit Cost Tracking System including Time and Attendance System, SCE&G, V. C. Summer Station
- ▶ Engineering Resource Schedule System Development, SCE&G, V. C. Summer Station
- ▶ Steam Generator Moisture Carryover Repair, SCE&G, V. C. Summer Station
- ▶ Plant Uprate including Closed Cycle Cooling System, SCE&G, V. C. Summer Station
- ▶ Steam Generator Replacement, SCE&G, V. C. Summer Station
- ▶ Moisture Separator Tube Bundle Replacements, SCE&G, V. C. Summer Station
- ▶ Mechanical Piping and Instrumentation System Installation, Pullman Power Products-Vogtle Electric Generating Plant
- ▶ NRC Bulletins 79-14 and 79-02 Program, Duke Power Company, McGuire Nuclear Station
- ▶ Mechanical System Design, Fluor Daniel Construction Co., V. C. Summer Station

