



RECEIVED

JAN 03 2020

Francis David Fitzgerald  
Planning Commission - District 2

WHATCOM COUNTY  
COUNCIL

APPLICATION FOR APPOINTMENT TO WHATCOM COUNTY BOARDS AND COMMISSIONS

PLEASE PRINT LEGIBLY and COMPLETE ALL ITEMS

Name: Francis David Fitzgerald Date: 31 Dec 2019  
Street Address: 7501 glacier spr. drive  
City: Glacier, Wa. Zip Code: 98244  
Mailing Address (if different from street address): PO Box 520, Maple Falls, Wa 98266  
Day Telephone: 360 599 1408 Evening Telephone: 360 599 1408 Cell Phone: 774 315 8580  
E-mail address: davefitz7501@yahoo.com

- Name of board or committee-please see reverse: Planning Commission
- You must specify which position you are applying for. Please refer to vacancy list. District 2 planning commissioner
- Do you meet the residency, employment, and/or affiliation requirements of the position for which you're applying? (If applicable, please refer to vacancy list.)  yes  no
- Which Council district do you live in?  One  Two  Three  Four  Five
- Are you a US citizen?  yes  no
- Are you registered to vote in Whatcom County?  yes  no
- Have you ever been a member of this Board/Commission?  yes  no  
If yes, dates: \_\_\_\_\_
- Do you or your spouse have a financial interest in or are you an employee or officer of any business or agency that does business with Whatcom County?  yes  no  
If yes, please explain: \_\_\_\_\_
- Have you declared candidacy (as defined by RCW 42.17A.055, see instructions) for a paid elected office in any jurisdiction within the county?  yes  no

You may attach a résumé or detailed summary of experience, qualifications, & interest in response to the following questions.

10. Please describe your occupation (or former occupation if retired), qualifications, professional and/or community activities, and education.  
licensed prof. engineer (Wa.) - retired engineer following 39 yrs in Electric Power production industry. BS ME & MEME. refer to attached resume' (3 pages)

11. Please describe why you're interested in serving on this board or commission: development of low income housing in Nooksack basin can be consistent with environmental requirements if wastewater is treated via "membrane bioreactor" & re-used for agriculture.

References (please include daytime telephone number): David Tougas (Bellingham M.A. plant) 508-966-5624; Jules Raymond 985-290-8275

Signature of applicant: [Signature] 31 dec 19

**THIS IS A PUBLIC DOCUMENT:** As a candidate for a public board or commission, the above information will be available to the County Council, County Executive, and the public. All board and commission members are expected to be fair, impartial, and respectful of the public, County staff, and each other. Failure to abide by these expectations may result in revocation of appointment and removal from the appointive position.



**F. David Fitzgerald, PE**  
PO Box 520, Maple Falls, Wa 98266  
reg. PE in the state of Washington

**11/01/11-5/5/17-** Fleet “water & steam cycle” engineer, GdF Suez Energy NA (AKA Engie), (Bellingham, Ma)- Reviewed failures of high energy piping at several combined cycle plants, primarily issues related to P91/F91 failures. Developed replacement flanges pairs to replace GT24 fleet dissimilar metal welds at their HP OTC steam outlet connections. Reviewed furnace waterwall tube failures at coal fired Mt Tom- related to water chemistry issues. Reviewed HP evaporator tube failures at Monterrey Mexico cogen HRSG’s plant HP evaporator, related to water chemistry issues. Assisted at evaluation of root cause for explosive failure of the ACC at Monterrey due to fuel gas leakage into the steam cycle. Assisted at reviewing design for retrofit supply of steam piping for steam augmentation of CTG ( Siemens) at Ennis station. Designed and implemented “curtain spray” for protection of the STG outlet exp joint at Astoria I to allow simple cycle operation. Evaluated impact of CTG compressor upgrade at W Windsor cogen and its impact on HRSG limitations. Also serving as Chairman of the ASME steam generator committee.

**1/5/03-7/29/11-(Contract)** Sr Engineer, Progress Energy (regulated utility in Raleigh, NC)- Reviewed the designs and determined recommended upgrades for equipment failures at 4 gas fired combined cycle stations ( GE F7A and SW 501 FD2). Equipment reviewed included bypass system condenser dump tubes, condenser tubes, bypass system control valves and attemporators, HRSG economizers , and reheater attemporators and bypass piping. Determined the cycling limitations of major HRSG components using EN-12952 ch 13 and recommended operating procedures and control logic upgrades rrequired to allow startups within environmental permits limitations and component cycling limitations. For 2 new combined cycle stations, reviewed the purchase specifications for the HRSG, STG + CTG , and evaluated the bids. Performed due diligence inspections of major equipment at 3 grey market sites . Acted as principal Engineer in review of settlement proceedings for fuel gas quality issues related to importation of LNG into Florida pipelines and its impact on large frame gas turbines. Reviewed and analyzed 3 major pipeline failures associated with incorrect fabrication procedures of SA335 P91 piping components. Closed-out projects to upgrade 3 coal fired plant FGD conversions, primarily focused on wastewater issues related the FGD blowdown purge streams and heavy metals hazards.

**6/1/99-8/27/02-Sr process/mechanical engineer, NEPCO/SNC Lavalin (EPC in Bothell, Wa) - Principal process engineer in the design, specification, and selection of major capital equipment for an 820 MWe gas fired combined cycle power plant. Supervised a team of 6 process engineers to simulate the cycle, assemble equipment specifications, develop operating process parameters, construct P&ID's, define operating procedures and recommend control logic . Designed and specified all major mechanical equipment, including CTg's, STG's, HRSG's, piping, valves, cooling towers, pumps, HVAC, and fire protection systems. Piping designed per ASME B31.1, Section I, section VIII div 1, and fatigue life consumption rules of TRD 301 annex 1.**

**1986-1998-Manager, Functional engineering dept and Once-thru technology manager, Foster Wheeler International ( Clinton, NJ)-Responsible for supervising the thermal - hydraulic analysis of utility boiler furnace circuitry (water- walls) ; sizing and specifying equipment modifications required to permit large coal fired utility boilers to cycle load; sizing and specifying startup system components ( piping, valves, separators) for supercritical once-thru steam generators; sizing and arrangement of steam turbine bypass systems. Developed new computer simulation methods for determining the off-design performance of heat recovery steam generators ( HRSG's) , and for a boiler life monitor system (BLM). Served as ISO 9001 QC representative . Published 16 technical papers, obtained 5 US patents. Codes used included ASME sect I, section VIII div 1 +2, TRD 301 annex 1 ( german boiler code)**

**1984-1986-Section Manager, Results Engineering dept. , Foster Wheeler Energy Corp ( Clinton, NJ)- In the field of aftermarket upgrades of fossil fired utility boilers, supervised the analysis of field test data and the computerized simulation of the existing equipment in order to determine the potential for equipment upgrades. Sized and configured the equipment upgrades for the purpose of improving plant operating flexibility ( load cycling capability) , improve boiler capacity or efficiency, suitability for alternative fuels, or to correct operating deficiencies. This included converting a 816 MWe supercritical Once thru unit to overnight spinning reserve cycling to 6% MCR load.**

**1980-1984-Engineer, Results Engineering and Functional Engineering depts., Foster Wheeler Energy Corp ( Clinton, NJ). Analyzed field test data from recently commissioned fossil fired utility boilers to determine if they met contract guarantees ,and to determine the most cost effective modifications to bring them into compliance. Supported the aftermarket proposals by determining the most cost effective upgrades required to meet the new performance requirements.**

**Jan-May 1982- Instructor of Thermodynamics at Rensselaer Polytechnic Institute ( Troy, NY) during leave of absence from Foster Wheeler.**

**1978-1980-Field service engineer, Foster Wheeler Energy Corp . Assisted in the initial commissioning of large fossil fired boilers, including oil fired drum boilers, pulverized coal fired supercritical steam generators, and fluid bed boilers.**

**1975-1976- Functional engineer, Linde div, UCC ( now Praxair)- designed cryogenic gas separation distillation towers using the Linde process ( cold box design)Designed and specified piping , valves, heat exchangers, compressors, distillation columns, insulation. Design code was ASME B31.3**

**Educational Background - at Rensselaer Polytechnic Institute ( Troy, NY)**

Sep '71-Dec '74- BS in Mechanical Engineering

Jan '77 - May '78- Masters degree in Mechanical Engineering

Jan '82-May '82- additional graduate studies while teaching thermodynamics

A list of 16 published papers and 5 US patents are available on request.