Subject: Online Form Submittal: Advisory Group Application
Date: Friday, January 3, 2025 2:22:23 PM

Advisory Group Application

Step 1

Application for Appointment to Whatcom County Advisory Groups

Public Statement
THIS IS A PUBLIC DOCUMENT: As a candidate for a public advisory group, the information provided will be available to the County Council, County Executive, and the public. All advisory group 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.

Title	Mr.
First Name	Robin
Last Name	Jentz
Today's Date	1/3/2025
Street Address	[redacted]
City	[redacted]
Zip	[redacted]
Do you live in Whatcom County?	Yes
Do you have a different mailing address?	*Field not completed.*
Primary Telephone	[redacted]
Secondary Telephone	*Field not completed.*
Email Address	[redacted]

Step 2

1. Name of Advisory	Climate Impact Advisory Committee

Group	
Climate Impact Advisory Committee Position:	Yes
2. Do you meet the residency, employment, and/or affiliation requirements of the position for which you're applying?	Yes
3. Which Council district do you live in?	District 1
4. Have you ever been a member of this Advisory Group	No
5. 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
If yes, please explain	I work part time for Worley. Worley does engineering in Whatcom County sometimes. I have written letters to Whatcom County Planning & Development Services regarding capacity changes to BP Cherry Pt.
6. Have you declared candidacy (as defined by RCW 42.17A.055) for a paid elected office in any jurisdiction within the county?	No
You may attach a resume or detailed summary of experience, qualifications, & interest in response to the following questions	Attached

7. Please describe your occupation (or former occupation if retired), qualifications, professional and/or community activities, and education	I have 50 years experience in the oil and gas industry, working for operating companies and design companies. I have a Washington Professional Engineering License. I have a Bachelors of Science in Chemical Engineering from California State University, Long Beach.
8. Please describe why you're interested in serving on this Advisory Group.	I think I can help. I have been working part time (remotely) for Worley but am working much less now.
References (please include daytime telephone number):	*Field not completed.*
Appointment Requirements	I understand and agree
Signature of applicant:	Robin Jentz
Place Signed / Submitted	[redacted]
	(Section Break)

Name: **ROBIN JENTZ, P.E.**

Title: **Lead Process Engineer**

Education: BSCHE, 1974, Cal State Long Beach, Long Beach, CA

Registrations: Professional Engineer in Washington

Software: HYSYS (including Dynamic), HYSIM, PRO II, Aspen Flare Analyzer/ Flarenet, Visio, Excel, Word, FORTRAN, Visual Basic, HTML, HTRI, STX, ACX, HTRI

EXPERIENCE

Mr Robin Jentz has 49 years experience in design and operation of oil and gas producing facilities and refineries.

Petroskills (2011-Present)

- Instructor for Petroskills - teaching a one week course "Relief and Flare Systems".

Worley Engineering, Bellingham, Washington (2019 to 2023)

- Process Engineer, FCC Main Fractionator Dynamic Simulations – Phillips 66, LAR
  Process Engineer on a study to determine Main Fractionator relief rates with various mitigation scenarios. A dynamic model was developed to determine the relief rates and the optimum location of new relief valves.
- Process Engineer, 6-Well Well Pad – Chevron Canada
  A dynamic model was built to model the well pad group and test separators to determine the required stroke time and valve Cv of an overpressure protection control valve and the closing speed of individual well ESDV's (emergency shutdown valves). This work was done to reduce the likelihood of the pressure relief valves from ever lifting.
- Process Engineer, Reformer Dynamic Simulations – Chevron, Salt Lake City Refinery
  Dynamic simulation of reformer developed to determine relief rates in a downstream debutanizer. Scenarios modeled included power failure, gas blowby and tube failure. Calculated relief rates were substantially less than rates using standard steady state methods.
- Process Engineer, Fired Heater Dynamic Simulation – Chevron, El Segundo Refinery
  Dynamic simulation of two forced draft fired heaters was developed to model the variable speed fan and its 2 speed backup fan. The dynamic simulation model was used to determine feasibility of using a 2 speed backup fan to prevent shutdown of the fired heater with loss of the main variable speed fan. The system was complicated by the use of one fan for two fired heaters.

Jacobs Engineering, Bellingham, Washington (2007 to 2019)

- Process Engineer, Atmospheric Relief Valve / Flare Study, BP Cherry Pt Refinery, Blaine, WA. Process Engineer on a project to reduce the number of relief valves venting

to atmosphere. A dynamic model of the process equipment was used to determine the amount of relief for the different refinery units and the duration and timing of the peak loads. This information was used to determine if additional relief valves could be tied into the existing relief header.

- Lead Process Engineer, HP Flare Replacement - Occidental, Elk Hills. This work involved replacement of a 175 MMSCFD sequenced high pressure flare with a 175 MMSCFD variable slot flare to allow for smokeless flaring.
- Lead Process Engineer, Best Available Retrofit Techonology Determination for BP Cherry Point Refinery – BP, Cherry Point, WA. Lead Process Engineer on a NOx reduction project at the BP Cherry Point Refinery. This worked included conceptual engineering for replacement of Heater burners with Low NOx burners (with associated fuel gas coalescer and instrumentation), and SCR (Selective Catalytic Reduction) systems.
- Process Engineer, FCC Main Fractionator Dynamic Simulation – Phillips 66, Ferndale. Process Engineer on a study to determine Main Fractionator relief rates and process temperatures during various relief scenarios, including loss of Slurry Pump.

Veco Engineering, Bellingham, Washington (1992 to 2007)

- Lead Process Engineer, Third Sidecut Stripper – ConocoPhillips, Ferndale Refinery, WA

  Lead Process Engineer on a detailed engineering project to add a sidecut stripper to the Crude Column to produce diesel.

- Lead Process Engineer, Flare Gas Recovery Unit – ConocoPhillips, Ferndale Refinery, WA

  Lead Process Engineer on an engineering project to add a flare gas recovery unit to the ConocoPhillips Ferndale Refinery. As part of this project a conference was held and representatives from all the ConocoPhillips USA Refineries presented their experience with different flare gas recovery compressors (reciprocating, liquid ring, screw and sliding vane). This conference assisted in the choice of the type of compressor to use for the flare gas recovery system.

- Lead Process Engineer, Sulfur Degassing – ConocoPhillips, Ferndale Refinery, WA

  Lead Process Engineer on a conceptual study to remove H2S from sulfur.

- Process Engineer, Isomerization and Debutanizer Units – Shell Puget Sound Refinery, Anacortes, WA. Principle Process Engineer performing equipment sizing and selection of heat exchangers, separation equipment and trayed columns.
- Lead Process Engineer, Milne Point Oil Dehydration – BP Exploration, Anchorage, AK

  Lead Process Engineer for developing detailed design of an upgrade to Milne Points Oil Dehydration. Oil Dehydrator internals were replaced with Natco Dual Frequency Grids, Tracerco Profiler (for level control) and new inlet and outlet distribution headers and new sandjetting header.

- Lead Process Engineer, Lost Hills Gas Dehydration – Chevron, Lost Hills, CA.

  Lead Process Engineer on a project to add two new glycol contactors, and upgrade the TEG Regeneration system to provide 99.7 wt% Lean TEG. Scope included two knock

out drums, two contactors, new stripping gas column and associated teg pump. Also replaced the TEG Still Column internals to reduce TEG losses in the effluent gas.

- Lead Process Engineer, Barbados Product Storage and Terminal Facility, Barbados National Terminal CO, Barbados. Responsible for developing design basis and detailed design of a 370,000 barrel terminal and pipeline system. Terminal includes gasoline, diesel, and kerosene truck loading facilities and jet fuel filtering. Pipeline system includes 1,750 gpm pumping and 4 miles of pipeline (each) for gasoline, diesel, jet fuel, and crude oil.
- Lead Process Engineer, HP Gas Scrubber Upgrade, Chevron, North Sea.
  Lead Process Engineer providing troubleshooting on hydrocarbon carryover into TEG Dehydration system. Work included recommended solution, bid specification and review, and project support for HP Gas Scrubber internals replacement.
- Lead Process Engineer, Ethanol System Chevron Marketing Operations, San Ramon, CA. Responsible for developing design basis and detailed engineering on project to add ethanol offloading and loading capability at eight Chevron gasoline terminals. Work included blending ethanol with gasoline, metering and loading to tankers at terminals.
- Lead Process Engineer, 100 MBPSD Crude Rate, Tosco Ferndale Refinery, Ferndale, WA. Responsible for developing design basis and preliminary engineering on debottlenecking Crude Unit to handle 100 MBPSD. Scope of work included: Reduce pressure drop by replacing heat exchanger bundle and replace Desalter internal inlet and outlet headers; Replace Desalter grids; Modify Flash Drum internals; Install new Preflash Drum.
- Lead Process Engineer, BP Exploration. North Slope, AK.
  Responsible for analyzing damaged TEG Still columns and recommending replacement internals and detailed engineering of recommended replacement columns.
- Lead Process Engineer, The Gas Company, Hawaii.
  Conceptual engineering study to review various propane storage options: refrigerated tanks, buried bullets, and above ground bullets. Total storage capacity was 1,000,000 gallons.
- Lead Process Engineer, Alkylation Unit Upgrade – Tesoro Petroleum, Anacortes, WA
  Process Engineer performing process study to provide a design basis and scope for debottlenecking a sulfuric acid alkylation plant.
- Lead Process Engineer, Alkylation Coalescer Replacement - Puget Sound Refining, Anacortes,WA Process Engineer on detailed engineering on project to replace hydrocarbon/water coalescers on feed to Alkylation Plant
- Lead Process Engineer, Spent Acid Aftersettler – Puget Sound Refining, Anacortes,WA
  Lead Process Engineer on developing design basis and detailed engineering on project to design and install a Spent Acid Aftersettler in a sulfuric acid alkylation plant.
- Lead Process Engineer, Tosco Gasoline Splitter – Tosco, Ferndale,WA
  Lead Process Engineer developing design basis and preliminary engineering on fractionation system to split gasoline into a light and heavy fraction. The work included:

Design Basis, PFD, P&ID's, Heat and Material Balance, Equipment list, Equipment Data Sheets, and summary of utility loads and impact on existing infrastructure.

- Lead Process Engineer, North Slope Oil Development – BP Exploration, Anchorage, AK
  Process Engineer providing oil and gas forecast for two different oil fields. Forecast were also made for producing the fluid in one facility.

- Lead Process Engineer, Milne Point CO2 Removal – BP Exploration, Anchorage, AK
  Lead Process Engineer on a conceptual design of a CO2 recovery, compression and injection system. The purpose of the system was Enhanced Oil Recovery. The following information was produced: PFD, Heat and Material Balance, and equipment list.

- Process Engineer, Arzanah Decommissioning Project – Zadco, Abu Dhabi
  Process Engineer writing decommissioning and cleaning procedures for an offshore production facility in the Arabian Gulf. Procedures were to be used to permanently decommission the field from production and ready the facility for dismantling.

- Lead Process Engineer, Milne Point EOR Project – BP Exploration, Anchorage, AK
  Lead Process Engineer for 48 MMSCFD EOR (Enhanced Oil Recovery) project to provide NGL for mixing with lean gas for injection into the reservoir for increased Oil Recovery.

- Process Engineer, Milne Point Sand Removal – BP Exploration, Anchorage, AK
  Process Engineer on a Conceptual Engineering Study to remove sand from a slug catcher and the associated produced water. The process scheme employed sandjets in the slugcatcher and hydrocyclones on the produced water stream.

- Lead Process Engineer, Milne Point Get To 100MBPD – BP Exploration, Anchorage, AK
  Lead Process Engineer on the Design Development phase of a project to increase the oil production at Milne Pt from 75 MBPD to 100 MBPD. Work included testing of separation train for residence time using radioactive test methods (a subcontractor was used for the test).

- Lead Process Engineer, Badami Peer Review -- BP Exploration, Anchorage, AK
  Lead Process Engineer on a third party peer review of an oil and gas production facility.

- Process Engineer, Prudhoe Bay 2000 -- BP Exploration., Anchorage, AK
  Process Engineer on a pre-conceptual engineering study to reduce costs for the operation of a declining oil field. Work included developing a scope of work for conceptual/preliminary engineering for the conversion of two gathering centers to partial processing plants, and a third gathering center to handle the final processing of the two partial processing centers and the total processing of its own production.

- Lead Process Engineer, Endicott PWHX -- BP Exploration, Anchorage, AK
  Lead Process Engineer on the expansion of the produced water handling capacity of the Endicott Oil and Gas Production Facility from 150MBPD to 200MBPD. This project also added sand jetting and disposal capability and additional oil heating.

- Lead Process Engineer, Endicott EOR Conceptual Engineering -- BP Exploration, Anchorage, AK. Lead Process Engineer on the Conceptual Engineering phase of a

project to add an Enhanced Oil Recovery (EOR) Facility at the Endicott Oil and Gas Production Facility. This EOR facility produces up to 45 MMSCFD of Miscible Injectant and compresses it to 4500 psig for injection into the oil reservoir.

- Lead Process Engineer, Endicott NGL Plant Upgrade -- BP Exploration, Anchorage, AK

  Lead Process Engineer on the optimization and expansion of the Endicott NGL Plant. This design increased the NGL recovery of the Endicott Plant by 500 BPD. The project scope went from the pre-conceptual engineering to the Design Development Package.

- Lead Process Engineer, Endicott TEG Upgrade Project – BP Exploration, Anchorage, AK. Lead Process Engineer to increase the gas dehydration capacity at Endicott and reduce TEG losses by upgrading the existing TEG Contactor. The Contactor's bubble cap trays were replaced with structured packing to allow for increased gas rates and increased processing efficiency.

- Process Engineer, BPX ETAP TEG System Review – BP, North Sea

  The TEG Dehydration and Regeneration System was reviewed and recommendations were made to enable them to make specification gas.

- Lead Process Engineer, TEG Reliability Project -- ARCO Alaska, Inc., Anchorage, AK

  Lead Process Engineer responsible for troubleshooting and recommending improvements to ARCO's TEG Dehydration System. Improvements recommended and implemented were:

  - New glycol KO drum mist extraction system, resulting in reducing TEG losses from 1 gal/MMSCF to less than 0.1 gal/MMSCF.
  - New high performance distributor and repacking of TEG contactor, resulting in reducing the product gas water content from 0.5 lb/MMSCF to less than 0.1 lb/MMSCF. The glycol carryover was also reduced.
  - New Residue Gas Scrubber Mesh Pads. Installation of the correct mesh pad upstream of the Peerless Vane System resulted in the elimination of hydrocarbon entrainment into the TEG Dehydrator.

- Lead Process Engineer, Main Gas Compression Upgrade - BP Exploration, Anchorage, AK. This project increased the gas handling capability of an existing oil/gas production facility from 400 MMSCFD to 480 MMSCFD.

- Lead Process Engineer, Niakuk - BP Exploration, Anchorage, AK. This project was a 20 MBPD wellpad and associated piping to a main processing facility (Oil, gaslift, and waterflood cross country pipelines)

BP EXPLORATION, Anchorage, Alaska (1981 to 1992)

- Senior Process Engineer II

  Responsible for process support to Endicott and Prudhoe Bay Operations. This involved the following work:

  - Design of plant modifications required as a result of current or future oil, gas and water rates.
  - Performance testing of all major equipment (compressors, oil/gas separators, heat exchangers, gas dehydrators, flare systems, etc) to

determine current plant capacity and develop a design basis and scope for future expansions.

- Writing computer programs (FORTRAN 77) to model the various unit operations. These programs include: 3 phase flashes, distillation, compression, pumping, phase diagrams, fluid hydraulics, PSV's, Reid vapor pressure, hydrate prediction, refrigeration systems, and glycol systems.

A major project which I worked on resulted in the low cost expansion of a TEG dehydration system from 240 MMSCFD to 550 MMSCFD by replacing the contactor trays with structured packing. The design basis for this project was developed by:

- Current equipment testing
- Pilot plant testing of proposed modifications
- Computer simulation of a TEG system and hydrate prediction

This work has significantly impacted the way gas dehydration systems are designed today.

ARAMCO, Dhahran, Saudi Arabia (1977 to 1981)

- Operations Engineer

  Responsible for operations support at the Berri Gas Plant, a 600 MMSCFD NGL plant. I provided operations support on the following processes:

  - NGL Processing
  - Gas Dehydration (Activated Alumina and Molecular Sieve)
  - Propane Refrigeration
  - Sour Gas Sweetening (DGA process)
  - Sulfur production (1400 tons/day, 3 stage Claus Plant)
  - Ethane Storage, liquefaction and vaporization (15 MMSCFD; 350,000 barrel storage)
  - Steam Generation and associated water treating

  A major problem I investigated and solved was the coadsorption of heavy hydrocarbons on activated alumina. My recommendation to change out the desiccant to molecular sieve resulted in the additional recovery of 88,000 barrels NGL/year.

THE RALPH M. PARSONS CO., Pasadena, Ca (1974 to 1977)

- Gas Process Engineer

  Performed process designs of gas gathering systems, fractionation columns, NGL Recovery Plants and sulfur removal. My duties included development of the process flow diagram, heat and material balance and the specification of all major equipment (e.g. heat exchangers, vessels, compressors, pumps, etc.)

Special Fields of Knowledge:

TEG Dehydration, Oil and Gas production, Flare and Relief Systems, Dynamic Simulations

Publications:

Chen, F.F.K., Jentz, R.A. and Williams, D.G., “Flare System Design: A case for Dynamic Simulation” 24th Annual OTC, Houston, TX May 4-7, 1992.

Jentz, R.A., Nau, S. and Muellenberg, L, “Dewpoint Method for Liquid Entrainment Measurement”, 1997 LR Gas Conditioning Conference, Norman, Ok, March 1997.

Employment History:

Worley Process Engineer	2019-2023
Jacobs Process Engineer VI	2007-2019
VECO Principal Staff Process Engineer	1992-2007
BP Exploration Senior Process Engineer II	1981-1992
ARAMCO Operations Engineer	1977-1981
THE RALPH M. PARSONS CO Gas Process Engineer	1974-1977