

Louisiana Engineering Society Board of Direction Meeting
November 10, 2023 – 11:00 AM
LES State Office

- | | |
|---|---------------------|
| 1. Call to Order | Jim Ellingburg |
| 2. Invocation | Jeff Pike |
| 3. Pledge of Allegiance | Melanie Caillouet |
| 4. LES Vision & Mission Statement | Melanie Caillouet |
| 5. Acceptance of Agenda | Jim Ellingburg |
| 6. Acceptance of September 2023 meeting minutes | Jim Ellingburg |
| 7. President’s Report | Jim Ellingburg |
| 8. Secretary-Treasurer’s Report | |
| a. Financial Reports of 10/31/23 | Clinton Patrick |
| 1) LES P&L statement | |
| 2) LES Balance Sheet | |
| b. Executive Session | |
| 9. Executive Director’s Report | Mary Claire Ruckert |
| 10. Old Business | |
| a. NSPE Update | Tyler Comeaux |
| 11. New Business | |
| a. Report from Honors & Awards Committee | Tyler Comeaux |
| b. Vote on Lifetime Achievement nominations | Jim Ellingburg |
| c. Report from Membership Committee/Voluntary Dues | Kalyn Partin |
| d. Update on JESC | Luke Miller |
| e. Alexandria Chapter & Membership Report | Kory Moss |
| f. Baton Rouge Chapter & Membership Report | TJ Stokes |
| g. Bayou Chapter & Membership Report | Kevin DeZarn |
| h. Lafayette Chapter & Membership Report | Justin Schexnayder |
| i. Lake Charles Chapter & Membership Report | Kalyn Partin |
| j. Monroe Chapter & Membership Report | Morgan McCallister |
| k. New Orleans Chapter & Membership Report | John Jackson |
| l. Shreveport Chapter & Membership Report | Linsey Olivier |
| m. PEC | Stan Whitney |
| n. PEE | Jeff Pike |
| o. PEG | Ali Mustapha |
| p. PEI | Jennifer Gemar |
| q. PEPP | Alan Krouse |
| 12. Announcements | |
| a. The next LES Board of Direction meeting is scheduled for February 27, 2024 in Lafayette in conjunction with the JESC. | |
| 13. Adjournment | |

Executive Director's Report

November 10, 2023

CPD Day:

- Life Safety Code: 65 attendees (46 virtual, 19 in-person)
- ADA: 37 attendees (27 virtual, 10 in-person)
- Ethics: 24 attendees
- Overall LES profit after cost-sharing: \$13,084.01

JESC Updates:

- All speaker opportunities have been filled
- 32 exhibitor booths have been sold (28 vendors in total); 18 remain
 - Tier One booths sold: 15 of 15 (Sold Out)
 - Tier Two booths sold: 11 of 22
 - Tier Three booths sold: 7 of 13
- We have 2 silver sponsors, 1 bar sponsor, 1 lanyard sponsor, 5 event sponsors, and 1 gold sponsor
- Conference registration is open now (41 registrants as of November 7)

Architecture-Engineering Task Force:

Following the 2023 Legislative Session, the Architecture-Engineering Task Force was called together to discuss the civil engineering exemption. The Task Force has met monthly since August. We continue to look for a possible compromise, the most recent centered around allowable structures on which civil engineers can continue to serve as Professional of Record. The engineering side of the Task Force has circulated some proposed verbiage among a cross-section of firms for review to ensure that we are doing what's best for the industry. The next Task Force meeting is on November 21, and the LES representatives serving on the Task Force are Chris Richard, Alan Krouse, and Mary Claire Ruckert.

MembershipWorks Presentation:

During the board meeting, we will showcase our new member database to demonstrate some of the new features and visibility available to us through MembershipWorks.

La. R.S. 37:155. Exemptions - CURRENT VERBIAGE

A. The provisions of this Chapter, except as provided in this Section, requiring persons to be registered and licensed and forbidding the practice of architecture by unlicensed persons shall not apply to:

(1) Officers and employees of the United States in the execution of their official duties in the practice of architecture for the federal government.

(2) Civil engineers licensed in accordance with the terms of R.S. 37:681 through 703 or acts amendatory thereto who design buildings or building additions, renovations or alterations with occupancy classifications of storage, factory and industrial, or utility and maintenance, if such engineers do not use the designation "architect" or any term derived therefrom.

(3) Registered architects of other states when associated with any registered architect of this state who will seal or stamp and bear professional responsibility for all specifications and other construction documents pertaining to work in this state.

(4) Persons acting as designers for:

(a) Single family residences.

(b) Buildings or projects that are to be constructed for personal use, provided such buildings are not intended, or adaptable for public employment, assembly, or other occupancy by the public.

(c) Renovations or alterations of any size building which do not affect the structural integrity, or life safety, exclusive of building finishes and furnishings, or which have been preapproved by the state fire marshal where life safety is affected and does not exceed one hundred and twenty-five thousand dollars. "Life safety" as used in this Subsection shall be governed by the interpretation of the state fire marshal in accordance with the authority of R.S. 40:1561 et seq.

(d) New buildings and buildings with changes in occupancy classifications which do not exceed the gross floor areas in Subsection (f) of this Section.

(e) Building additions that do not cause the gross floor areas to exceed those in Subsection (f) of this Section.

(f)(i) Occupancy Classifications and Gross Floor Area Sq. Ft.

Storage	6250
Factory and Industrial	5000
Mercantile	4000
Residential	4000
Education	2500
Institutional	2500

High Hazard	1500
Assembly	2650
Business	4000
Utility and Maintenance	5000

(ii) Occupancy classifications and gross floor areas are as defined in the current editions of the codes which comprise the state uniform construction code and which are identified in R.S. 40:1730.28.

(5) Routine maintenance projects that do not exceed the contract limit for public bidding as defined in R.S. 38:2212(A)(1)(d).

B. No exempt person under Paragraph (A)(1), (2), or (3) of this Section shall do any of the following:

(1) Practice any fraud, deceit, dishonesty, gross negligence, misrepresentation, gross incompetence, or misconduct in the practice of architecture.

(2) Wilfully mislead or defraud any person employing him.

(3) Violate the laws of the United States or any state.

(4) Provide false testimony before the board.

(5) Affix his seal, stamp, or name to any specification, drawing or other related document which was not prepared by him or under his responsible supervision and control, or permit his seal, stamp, or name to be affixed to any such document.

(6) Fail to provide, within thirty calendar days of mailing of notice by certified mail, information requested by the executive director as a result of a formal complaint to the board alleging a violation of this Chapter.

(7) Use any advertising or solicitation which is false or misleading.

(8) Otherwise violate any provision of this Chapter.

C. The procedures set forth in R.S. 37:154(C) shall apply to actual or alleged conduct enumerated in Subsection B of this Section, and the board may investigate a complaint alleging such conduct, issue an order to any person prohibiting such conduct after a hearing held in accordance with R.S. 37:154(C), and impose a civil penalty in accordance with R.S. 37:154(C) to any person who violates an order of the board. In the alternative, the board may present its findings to the district attorney in whose district the violation has occurred in accordance with R.S. 37:154(D).

Acts 1983, No. 472, §1; Acts 1989, No. 653, §1; Acts 1991, No. 418, §1; Acts 1995, No. 238, §1; Acts 1997, No. 365, §1; Acts 2011, No. 18, §1, eff. June 7, 2011.

La. R.S. 37:155. Exemptions - PROPOSED VERBIAGE

A. The provisions of this Chapter, except as provided in this Section, requiring persons to be registered and licensed and forbidding the practice of architecture by unlicensed persons shall not apply to:

(1) Officers and employees of the United States in the execution of their official duties in the practice of architecture for the federal government.

(2) (a) Civil engineers licensed in accordance with the terms of R.S. 37:681 through 703 or acts amendatory thereto, when designing new buildings, additions, renovations or alterations, or those with changes in occupancy classifications, which do not exceed the following gross floor areas, if such engineers do not use the designation “architect” or any term derived therefrom:

<u>Occupancy Classifications</u>	<u>Gross Floor Area Sq. Ft.</u>
Storage	No limit
Factory and Industrial	No limit
Mercantile	8000
Residential	8000
Education	5000
Institutional	5000
High Hazard	No limit
Assembly	5300
Business	8000
Utility and Maintenance	No limit

(b) When such new buildings, additions, renovations or alterations include more than one occupancy classification, the gross floor area of each occupancy classification shall be evaluated separately.

(c) Occupancy classifications and gross floor areas are as defined in the current editions of the codes which comprise the state uniform construction code and which are identified in R.S. 40:1730.28.

(3) Registered architects of other states when associated with any registered architect of this state who will seal or stamp and bear professional responsibility for all specifications and other construction documents pertaining to work in this state.

(4) Persons acting as designers for:

(a) Single family residences.

(b) Buildings or projects that are to be constructed for personal use, provided such buildings are not intended, or adaptable for public employment, assembly, or other occupancy by the public.

(c) Renovations or alterations of any size building which do not affect the structural integrity, or life safety, exclusive of building finishes and furnishings, or which have been preapproved by the state fire marshal where life safety is affected and does not exceed one hundred and twenty-five thousand dollars. "Life safety" as used in this Subsection shall be governed by the interpretation of the state fire marshal in accordance with the authority of R.S. 40:1561 et seq.

(d) New buildings and buildings with changes in occupancy classifications which do not exceed the gross floor areas in Subsection (f) of this Section.

(e) Building additions that do not cause the gross floor areas to exceed those in Subsection (f) of this Section.

(f)(i) Occupancy Classifications and Gross Floor Area Sq. Ft.

Storage	6250
Factory and Industrial	5000
Mercantile	4000
Residential	4000
Education	2500
Institutional	2500
High Hazard	1500
Assembly	2650
Business	4000
Utility and Maintenance	5000

(ii) Occupancy classifications and gross floor areas are as defined in the current editions of the codes which comprise the state uniform construction code and which are identified in R.S. 40:1730.28.

(5) Routine maintenance projects that do not exceed the contract limit for public bidding as defined in R.S. 38:2212(A)(1)(d).

B. No exempt person under Paragraph (A)(1), (2), or (3) of this Section shall do any of the following:

(1) Practice any fraud, deceit, dishonesty, gross negligence, misrepresentation, gross incompetence, or misconduct in the practice of architecture.

(2) Wilfully mislead or defraud any person employing him.

(3) Violate the laws of the United States or any state.

(4) Provide false testimony before the board.

(5) Affix his seal, stamp, or name to any specification, drawing or other related document which was not prepared by him or under his responsible supervision and control, or permit his seal, stamp, or name to be affixed to any such document.

(6) Fail to provide, within thirty calendar days of mailing of notice by certified mail, information requested by the executive director as a result of a formal complaint to the board alleging a violation of this Chapter.

(7) Use any advertising or solicitation which is false or misleading.

(8) Otherwise violate any provision of this Chapter.

C. The procedures set forth in R.S. 37:154(C) shall apply to actual or alleged conduct enumerated in Subsection B of this Section, and the board may investigate a complaint alleging such conduct, issue an order to any person prohibiting such conduct after a hearing held in accordance with R.S. 37:154(C), and impose a civil penalty in accordance with R.S. 37:154(C) to any person who violates an order of the board. In the alternative, the board may present its findings to the district attorney in whose district the violation has occurred in accordance with R.S. 37:154(D).

Acts 1983, No. 472, §1; Acts 1989, No. 653, §1; Acts 1991, No. 418, §1; Acts 1995, No. 238, §1; Acts 1997, No. 365, §1; Acts 2011, No. 18, §1, eff. June 7, 2011.

Alexandria Chapter Update:

Our 2nd meeting was held on October 3rd. It was a great presentation by our Baton Rouge Chapter president, Mr. TJ Stokes.

Our next meeting is this Tuesday, Nov 14 at the Community Center near the Alexandria International Airport. Our Speaker will be Cyndi Glascock with Gainey's presenting on Stormwater Treatment.

I'd also like to announce that we received our donation from Cleco Power to fund the Mathcounts equipment.

If you need anything from me please don't hesitate to contact me.

Louisiana Engineering Society – Baton Rouge Chapter

November 2023 State Board Meeting: Chapter Update

By: TJ Stokes, P.E.

In September, we hosted a lunch with Jay Hardman from the Port of Greater Baton Rouge that was very well attended at Mike Anderson's. In October, Roger Husser with LA Facility Planning and Control joined us at Juban's for another well attended lunch.

On October 6th, we held our annual Clay Shoot which provides funds for our local stem grants and scholarships. We had a great turn out with over 80 shooters in attendance.

We have also chosen the Baton Rouge Chapter Honors and Awards winners:

1. A.B. Patterson – Engineer in Management - Greg Sepeda
2. Andrew Lockett – Civic Activities - Connie Betts
3. Charles Kerr – Public Relations - Miles Williams
4. F. Hugh Coughlin – Young Engineer - Gabriel Rice with Volkert
5. James Todd – Technological Accomplishments - Brett McMann with The Water Institute of the Gulf
6. Leo Odom – Services to the Profession – Lynn Roussel

In December, we will have Chad Winchester, the new Chief Engineer with DOTD, speak on his plan for the department over the next few years and we will have Fred Raiford with the City of Baton Rouge provide an update on the MOVEBR program in January.

Also, next month we plan to choose and award our Chapter's local STEM grant winners which is always a lot of fun to present to the winning schools.

All in all, it's been a busy few months and we can't wait to see what is in store for the remainder of 23 and the beginning of 24.

LES Bayou Chapter Update

Membership is essentially unchanged and monthly meeting participation is steady with 10-15 members. I have decided to move our monthly meeting to different areas around the chapter's territory to facilitate participation from member who may not normal come due to travel time limitation during their lunch break. Monthly meetings for November and December are postpones due to the hectic holiday season. However, A Christmas social is being planned for an evening in December.

By: Kevin T. DeZarn, PE, CFM

Lafayette Chapter Update

1. Speakers for Lunch are a challenge- have not been able to secure a speaker for November
2. December- Christmas Lunch- no speaker or PDH - week of December 11, 2023
3. Looking to 2024 for speakers for lunches and Math Counts Support

Lake Charles Chapter Update

- Mayor of lake Charles spoke in October and had an okay attendance.
- November plans changed last minute, but have rescheduled things and added a December meeting.
- Running out of chapter budget. Meeting with team to talk about restructuring, planning, sponsors, etc.
- Beginning to plan for Mathcounts but need sponsors.
- Need to work on speakers beginning in 2024.



Louisiana Engineering Society

MONROE CHAPTER November Update

MEMBERSHIP (AS OF NOVEMBER 1, 2023)

Monroe Chapter 2023-2024														
Membership Type	Status	July	August	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	YTD
Governmental	Paid	0	0	1	1	1								
	Free	0	0	0	0	0								
Corporate Sustaining	Paid	2	1	1	1	2								
EI	Paid	1	1	2	2	2								
	Free	0	1	0	0	0								
EI Under 30	Paid	11	11	10	10	10								
	Free	4	2	2	3	3								
Honorary	Free	0	0	0	0	0								
Individual Sustaining	Paid	3	3	3	3	3								
Life	Free	16	19	19	19	19								
PE	Paid	53	49	50	52	53								
	Free	4	4	4	3	3								
Students	Free	19	17	17	16	19								
Monthly Total		113	108	109	110	115	0	0	0	0	0	0	0	
Gain/(Loss) From Prev. Month		0												

**We are pleased to have growth in our local membership,
and have emailed each one welcoming them to the LES Monroe Chapter.**

MEETING DATES & SPEAKERS 2023-2024 (AS OF OCTOBER 12, 2023)

September 14, 2023 (23 IN ATTENDANCE) | Matt Mixon | Wetlands Unlimited | NEPA/EA

October 12, 2023 (27 IN ATTENDANCE) | Tom Malmay | Malmay & Associates | Flood Hazard Mitigation

November 9, 2023 | Jeff Pike | Retired LA Tech Professor | Ethics

December 14, 2023 | Sandy Marshall | Gainey's Concrete Products | Detecting and Preventing Fraud

January 11, 2024 | To Be Announced

February 8, 2024 | Foy Gadberry | LA State Representative | Legislative Update

March 14, 2024 | Bill Coleman | ICE | HeadLight Inspection & Certification Platform

April 11, 2024 | Chris Cothron | NEI Corporation | New Technology

May 9, 2024 | Brett Robinson | Office of AG Jeff Landry | Louisiana Public Bid Law

ADVERTISEMENT BUDGET VS ACTUAL

2023-2024 BUDGET = \$3,000

2023-2024 ACTUALS (TO DATE) = \$5,575

LES-NEW ORLEANS CHAPTER UPDATE

Past 2023 MEETINGS

- September 13 Brandon Frierson (Wastewater Treatment)
- October 25 Ryan Haynie (Lobbyist-Political Outlook)

UPCOMING 2023 MEETINGS

- November 15 Kimberly Cook-Nelson (Entergy-Nuclear Power)
- December 13 Lonnie Dutreix (NASA)
- January 17 Panel (2024 Engineering Business Outlook)

It's been a busy few weeks. October 25 was our general meeting. Ryan Haynie of Haynie and Associates presented on Louisiana Elections and Politics and gave an update on LES lobbying that led to some healthy debate. Two days later we hosted our 15th annual LES New Orleans Golf Tournament on Friday, October 27th. We haven't completed the final accounting from the tournament yet, but we're expecting record-breaking numbers. Then on November 2nd we hosted a joint professional society social with ten other professional organizations related to engineering, architecture, and urban planning. It was a blowout event with over 300 attendees.

Our next meeting will be held at the University of New Orleans. The Chief Nuclear Officer of Entergy will be speaking about the future of nuclear power. Already, the Dean of the university as well as the Dean of the College of Engineering have registered. We're hoping that the event will lead to more students becoming members of LES.

In December we will be holding our meeting at the Southern Yacht Club, during which a speaker from NASA will present on the Artemis program.

Our golf tournament committee will be meeting soon to go over the good and bad of the tournament and to strategize for next year. Our technical team will be meeting this afternoon to review our website and to brainstorm how to streamline our meeting registration process.

John M. Jackson, P.E.
LES-NO, Chapter President 2023 - 2024

SHREVEPORT CHAPTER – November Meeting Updates

By Linsey Olivier, PE

The Shreveport LES Chapter kicked off this year with a couple of great speakers. Gabe Landry with Red River Pump Specialists, Inc. presented lift station backup solutions in September. Our speaker for October was Barbara Featherston, who is the District Engineer for Louisiana Department of Health-Engineering Services District 4. She discussed the role of LDH Engineering Services and navigating the LDH plan review process. We've had great turnouts at these meetings and hope this momentum continues throughout the year. Our last meeting of the year was on November 1st and we had Julie Gilley, who is a senior financial analyst with Entrepreneurial Accelerator Program (EAP) as our guest speaker. She talked about BRP, EAP, and the New Louisiana Angel Relief Fund. Our next event will be the Christmas party with ASCE and that will be at Flying Heart Brewery, and we already have our monthly meetings planned up until March.

Frank P. Betts, PE

834 Grand Lakes Dr, Baton Rouge, LA 70810
225-939-6392, email: cporter33@cox.net

Qualifications:

Over 30 years of progressive leadership and supervision in industrial manufacturing facility including Operations, Construction, Maintenance, Engineering, and Project Delivery Supervisor positions. Demonstrated leader, problem solver, and educator that works diligently for the Company's success. The following 4 principals with examples guide my approach to managing the business to be the best in Industry.

Safety

- Extensive knowledge of plant and industry safety work practices for construction and maintenance
- Collaborated as member of Complex Safe Operations Committee as Mechanical rep for 4 years
- Coached contract construction partners as "Buddy Manager" to improve safety performance
- Implemented Behavioral Based Safety Program with Section with goal to teach, involve and gain commitment from mechanics to behave consistent with our values
- Led Apprentice Safety Camp development to teach proper techniques and emergency response
- Led high consequence investigations with appropriate cost-effective actions to prevent recurrence

Personnel Development

- Led Mechanical First Line Supervisor (FLS) and Wage Development Team for 9 years
- Led hiring FLS, promoting FLS, hiring wage, making Temporary Supervisors, and training
- Analyzed FLS and wage demographics and made recommendations (150 FLS's and 300 wage)
- Led team on developing Mechanical personnel development process in use for past 9 years

Quality

- Facilitated craft training, set expectations/practices, inspect to expectations, coach on performance
- Developed and followed processes for accomplishing objectives
- Identified improvements from near misses to improve the safety and consistency of our work
- Included mechanical contractor and engineering in investigations to ensure holistic solutions

Efficiency

- Assigned tasks to the right people with the right skills to be successful or stretch capabilities
- Actively pursued efficiency identification and implementation from process design front-end loading, to detailed design, bidding, permitting, and construction - implemented millions of savings

Employment-Exxon Mobil Global Projects, Refining, and Chemicals, 1990-present

Project Management – 7 years

- Refined and implemented global engineering and procurement strategy to deliver industry leading projects from cost perspective
- Led 3rd party engineering and procurement contractor through detailed design on 300M\$ coker revamp project including execution planning and scope refinement during work from home environment – maximized pre-TA scope and TA execution completed per plan
- Led 3rd party engineering and procurement contractor through detailed design on 200M\$ refinery feed flexibility project across 6 units in 10 months – reworked advanced work package plan and leveraged plant relationships to split work to organization that could most efficiently execute
- Led Integrated Project Team on 30M\$ coker gantry crane and structure replacement project that included 2 cranes for 2 cokers on one runway - sequentially executed across 2 turnarounds

Construction Second Line Supervision - 7 years

- Supervised 15 supervisors that directed a 100-person mechanical construction crew – all crafts
- Completed Maintenance and Capital construction for over 20M\$ per year from piping to analyzers
- Mechanical lead for procurement interface including requisitioning, bidding and negotiating

Maintenance Second Line Supervision - 6 years

- Developed work process and training for site upgrade of Primavera scheduling process
- Merged and led site-wide Instrument and Analyzer maintenance section of 115 personnel
- Led plan development and execution stewardship for a number of turnarounds
- Worked with First Line Supervisors on developing instrument and analyzer proficiency matrices, identifying gaps, and creating technician cross training plans to fill gaps
- Implemented strategy for reviewing instrument and analyzer preventative maintenance schedules and extended those frequencies based on relative priority of the instrument or analyzer
- Managed mechanical budget of 17 cost centers totaling 10M\$/year, which were brought in on budget

Operations Second Line Supervision - 5 years

- Ran Olefins Coproducts units and Vistalon rubber units in the Baton Rouge Chemical Plant
- Led team to implement improved controls on units to set production records and 5-15% improvement
- Reduced Exxon Mobil and contract workforce by consolidating posts while retaining operations excellence (reduced Exxon Mobil workforce by 25% and contract by 12%)
- Executed TA for unit on 10 year frequency under budget and on schedule; facilitated problem solving and decision making during S/D, mechanical work, and S/U

Engineering Second Line Supervision - 2 years

- Led Power Distribution Major Projects to replace substations at the Chemical Plant--16M\$ over 3 years
- Led Technical Section for once every 10 year TA with contact engineers that had no previous T/A experience in developing technical package including training for technical and development of inspection and documentation packages for equipment (pictures and write-up)

Project Engineer - 5 years

- Wrote Substation Design Practices for group to ensure consistent design, reduce costs, and satisfy customers
- Standardized required drawings for substation projects to include feeder maps, area classification maps, supervisory drawings, and remote transfer drawings

Education

University of Washington--Bachelor of Science Electrical Engineering, Cum Laude, 1990
Louisiana State University--Master of Science Finance, 2019

Registered Professional Electrical Engineer (LA) 1996-present
Previous holder of Project Management Professional certification

LAPELS BOARD EVALUATION QUESTIONNAIRE

For *INDUSTRY* Position

(Private Practice, Government, Education, Construction, Industry)

Circle answers and include actual years for each answer

1. Responsibilities and background as an Engineer.

A. Are you currently a resident of Louisiana?

Yes No

B. Are you a Louisiana licensed Professional Engineer?

Yes No

If yes, month/year first licensed _____ Jan ____ / ____ 1996 _____

C. Are you currently employed as a Professional Engineer in your practice division?

Yes No

If yes, give the name of your employer:

____ExxonMobil_____

D. Years of experience in your practice division as a Professional Engineer?

_____ 33 _____

E. Were your first years of experience in your current practice division?

Yes No

F. Do you have, or have you had, direct supervision of engineers-in-training?

Yes No

G. Years in management of Professional Engineers.

_____ 19 as a client _____

H. Years in management of Non-Professional Engineers.

_____ 33 _____

I. Are you currently in responsible charge of important engineering work?

Yes No

J. In which area(s) of practice (civil, mechanical, electrical, etc.) are you licensed? _____ Electrical _____

K. Highest level of education achieved:

B.S. M.S. Ph.D.

L. Years involved in technical design.

_____ 19 _____

M. Technological (research) recognition?

Yes No

N. Technical recognition?

Yes No

2. Support of the Profession

A. Years as a member of Louisiana Engineering Society and National Society of Professional Engineers?

_____ 2 _____

B. Member of what Louisiana Engineering Society and National Society of Professional Engineers?

_____ Baton Rouge chapter _____

C. Chairperson of what Louisiana Engineering Society, National Society of Professional Engineers, Consulting Engineers Council of Louisiana Committees? None

D. Chapter offices held and Organization Name.
None

E. State offices held and Organization Name.
None

F. National offices held and Organization Name.
None

G. Other Professional recognition received.
None

3. Support of Practice in Technical Organizations (Ex: ASCE, IEEE, AIChE, etc.)

A. Technical membership and years as a member. 4-5 (IEEE)

B. Member of technical organization committees. None

C. Chair of technical organization committees. None

D. Chapter offices of technical organization. None

E. State offices of technical organization. None

F. National offices of technical organization. None

G. Technical activity recognition. None

4. Support of Community

A. Local/State/National political subdivision elected official? Yes No
Title: _____

B. Community service/Religious organizations? Yes No
If yes, years as a member and organization. _____

C. Community service/Religious organizations member of committee (activity)? Yes No
Advisor for Tau Beta Pi at LSU for past 3 years

- D. Community service/Religious organizations chairman of committee? Yes No
-
- E. Community service/Religious organization offices held? Yes No
-
- F. Community service recognition received? Yes No
-

5. General Information

- A. Employment history, positions.

ExxonMobil 1990 to present

5 years electrical/project engineer

1 year engineering supervision -- Electrical/Instrument/Analyzer

5 years operations supervision on 2 different units – chemical production units

1 year technical supervision -- Chemical Engineers

2 years maintenance supervision – all crafts

1 year maintenance supervision – Instrument and Analyzer

3 years planning/scheduling and construction supervision

7 years project and construction supervision

6 years major project development, engineering, and delivery

- B. Why do you want to serve on the LAPELS Board?

To give back to the profession, preserve and improve the stature of the profession, and to represent industry honorably

- C. What do you consider the most important function of the LAPELS Board?

Protect the health and safety of people and property, to maintain and enhance the integrity of professional engineering, and to improve our economic competitiveness through championing engineering as economic driver

- D. Is there anything that you would like to accomplish while serving on the LAPELS Board?

Continue the legacy of work that the current and previous boards have accomplished. I am familiar with board duties and standing committees including PE applications, EIT applications, complaint review committee, executive committee, education/accreditation, continuing education, enforcement, firm licensure, laws and rules, and finance. I am also familiar with the interactions between the board and NCEES.

- E. Are there any issues affecting engineering and/or surveying that you feel need to be addressed by the Board?

Continue to be aware of and influence our legislature to maintain/modify/pass laws that both protect personnel and property and promote Louisiana's global economic competitiveness

6. List the names, complete addresses and telephone numbers of three people who will serve as professional or character references. Two references must be registered Professional Engineers.

1. Name: Keith Bange, PE LA 44155
Address: 619 E 27th St
City,State,Zip: Houston, TX 77008
Email: Keith.Bange@exxonmobil.com
Cell/Home Phone: 318-230-0127
Business Phone: _____

2. Name: Ken Messer, PE
Address: 3733 Floyd Dr
City,State,Zip: Baton Rouge, LA 70808
Email: ken.p.messer@gmail.com
Cell/Home Phone: 225-938-7272
Business Phone: _____

3. Name: Chris Kafkallides, PE
Address: 18550 Plantation Ct
City,State,Zip: Prairieville, LA 70769
Email: chris.kafkallides@sigmaec.com
Cell/Home Phone: 225-571-1051
Business Phone: 225-388-5103

CRAIG M. BOREL, P.E.
Vice President of Engineering- Baton Rouge
Marty.borel@gmail.com
225-937-7441

EDUCATION:

B. S. Petroleum Engineering, University of Southwestern Louisiana, (Minor in Mathematics), 1985

PROFESSIONAL AFFILIATIONS:

- Registered Professional Engineer – Louisiana, Texas, Arizona, Colorado, Pennsylvania, Wyoming and New Mexico
- Instrument Society of America, Senior Member
 - Control System P.E. Engineering Examination Team, 2003
 - Past Member of the SP84 Committee, “Programmable Electronic Safety Systems”
 - Voting Member of the SP5 Committee, “Instrumentation Documentation” 2001
 - Sub-committee Chairman, SP5.7, “Development and Use of PFD’s and P&ID’s”, 2001-2007
 - Voting Member of SP5.7 sub-committee, 2007 – 2009
 - President of the Baton Rouge Section, 2023 - Present
- Society of Petroleum Engineers, Senior Member
- Knights of Columbus, 3rd Degree
- National Eagle Scout Association, Member
- Former Commissioner of Gravity and Drainage District #1, Livingston Parish, LA

WORK EXPERIENCE:

NorthStar Energy Services, an EPC firm, a Quanta Services Company

Vice President of Engineering, July 2014 – Present

- Overall responsibility for engineering operations and P/L for the Baton Rouge/ Houston offices. Client recourse management and multi-discipline engineering QA/QC.
- Established NSES engineering group from inception to its current staffing of 50 engineering and designers.

INDUSTRIAL ENGINEERING MANAGEMENT, LLC, a full service multi-discipline engineering, procurement and construction management firm.

CEO/President/Founder, Houston, TX, September 2009 – July 2014

- Overall responsibility for company operations, marketing, P/L and strategic planning.
- Established two offices, Baton Rouge, LA., League City, TX, later in Houston, TX
- Company Founder, taken Company from inception to growth of over 250 people.
- For the state of Louisiana Department of Transportation, Appraisal division, performed Oil & Gas Well evaluations, evaluated new and existing gas gathering lines, and provided Opinion of value and cost to cure on existing wells and lines to be relocated. This work includes evaluating the need for new wells and well locations for state projects. This includes updating maps and right of

way locations, determining utility needs for new/existing wells and written evaluations. This work is has been ongoing since November of 2009.

SPECTRUM ENGINEERING, INC., a full service multi-discipline engineering, and procurement firm.

Vice President of Engineering, Minority Owner, August 2009 – September 2009

- Overall responsibility for company operations, marketing and strategic planning.

Vice-President – Midstream Business Unit, December 2008 - July 2009

- Served as the Business Unit Manager for the Midstream business, responsibilities included corporate management of engineering and project management services.
- The midstream business unit compromised over 70% of the company's business at \$27Million in engineering services for 2008.

Vice-President Houston Operation, April 2007 - December 2008

- Served as the manager of the Houston Office, responsibilities included over- site management of engineering and project management services as well as recourse client contact from the corporate to project level for the Houston office staff of 80.

Sr. Project Manager/Project Director, 2005 – April 2007

- Responsible for the management of projects for multiple clients as well as served as the project director for all Enterprise Products projects.
- Established the Houston Office for Spectrum Engineering in July of 2006.

Project Manager/Control Systems/Electrical Engineering Department Manager, December 2001 – 2005

- Manager of the Control Systems Engineering Department.
- Created the Control Systems Engineering Department with the start-up of Spectrum Engineering, Inc.
- Responsible for building a client base, the company network system and telephone systems.
- Developed company control systems standards and implemented tools needed to produce Control Systems Engineering Design Packages.
- Project Management services for EPC projects.

RPM ENGINEERING, INC., a full service multi-discipline engineering, and procurement firm.

Control Systems Department Manager, Baton Rouge, LA, June 1996 – December 2001

- Manager Control Systems Engineering Department with a staff of 30 professionals (12 engineers, 13 designers and 5 draftsmen).
- Recourse management from the corporate level to the project level.
- Extensive customer contact with all RPM booked clients, as well as responsibility for exploring new prospective customers.
- Project management responsibility for instrumentation exclusive projects.

Controls Systems Engineer, November 1994 - June 1996

- Responsibilities included design, specification and configuration of control systems for the process industry.

AMEC ENGINEERING, INC., a full service multi-discipline engineering, and procurement firm.

Control Systems Engineer, Baton Rouge, LA, February 1993 - October 1994

- Responsible for design, specification and configuration of control systems for the process industry.

HALLIBURTON LOGGING SERVICES, an oilfield wireline service company.

Senior Engineer, Lafayette, LA, November 1987 – February 1993

- Design, maintenance and operation of instrumentation equipment utilized in determining well parameters for log analysis for onshore and offshore wells.
- Supervised seven individuals (2 engineers, 5 operators) in the maintenance and operation of logging instrumentation.
- Extensive customer contact on a project and technical sales basis.
- Served as District Safety Officer, District Purchasing Officer, District Inventory Control Officer, and Division Quality Improvement Officer.

PRODUCTION MANAGEMENT CORPORATION, an oil & gas consulting firm

Production Operator/Engineering Assistant, Lafayette, LA, April 1986 – November 1987

- Performed operations on an offshore oil and gas production platform.
- Assisted the chief engineer in design and operation of oil and gas production.

CAMERON IRON WORKS, an oil and gas service firm

Drilling Equipment Service Representative, Broussard, LA, January 1986 – April 1986

- The installation and servicing of valves, wellhead, BOP's and other Cameron equipment.

AMOCO PRODUCTION COMPANY, an oil and gas firm

Worked for Offshore Division under the Summer Engineering Program, Lafayette, LA, June 1983 – August 1983

LAPELS BOARD EVALUATION QUESTIONNAIRE

For *INDUSTRY* Position

(Private Practice, Government, Education, Construction, Industry)

Circle answers and include actual years for each answer

1. Responsibilities and background as an Engineer.

A. Are you currently a resident of Louisiana?

Yes No

B. Are you a Louisiana licensed Professional Engineer?

Yes No

If yes, month/year first licensed 01 / 1999

C. Are you currently employed as a Professional Engineer in your practice division?

Yes No

If yes, give the name of your employer: NorthStar Energy Services, a Quanta Company

D. Years of experience in your practice division as a Professional Engineer?

24 years

E. Were your first years of experience in your current practice division?

Yes No

F. Do you have, or have you had, direct supervision of engineers-in-training?

Yes No

G. Years in management of Professional Engineers.

26 years

H. Years in management of Non-Professional Engineers.

30 years

I. Are you currently in responsible charge of important engineering work?

Yes No

J. In which area(s) of practice (civil, mechanical, electrical, etc.) are you licensed? Control System

K. Highest level of education achieved:

B.S. M.S. Ph.D.

L. Years involved in technical design.

32 years

M. Technological (research) recognition?

Yes No

N. Technical recognition?

Yes No

2. Support of the Profession

A. Years as a member of Louisiana Engineering Society and National Society of Professional Engineers?

3 yrs

B. Member of what Louisiana Engineering Society and National Society of Professional Engineers?

LES

- C. Chairperson of what Louisiana Engineering Society, National Society of Professional Engineers, Consulting Engineers Council of Louisiana Committees? **None** _____
- D. Chapter offices held and Organization Name. **None** _____
- E. State offices held and Organization Name. **None** _____
- F. National offices held and Organization Name. **None** _____
- G. Other Professional recognition received. **None** _____

3. Support of Practice in Technical Organizations (Ex: ASCE, IEEE, AIChE, etc.)

- A. Technical membership and years as a member. **Society of Petroleum Engineers (SPE) – 37 years and International Society of Automation (ISA) - 30 years**
- B. Member of technical organization committees. **NCEES/ISA Committee for creating the new Control Systems PE Exam, 2003**
- C. Chair of technical organization committees. **ISA Sub-Committee Chairman for SP5.7 P&ID Use and Development. 2009**
- D. Chapter offices of technical organization. **President of the ISA- Baton Rouge Section – 2023/24** _____
- E. State offices of technical organization. **None** _____
- F. National offices of technical organization. **None** _____
- G. Technical activity recognition. **None** _____

4. Support of Community

- A. Local/State/National political subdivision elected official? Yes No
Title: _____
- B. Community service/Religious organizations? Yes No
If yes, years as a member and organization. **National Society of Eagle Scouts, 40yrs; Knights of Columbus 3rd degree – 30 yrs, 5 yrs; Catechism teacher 10 grade, 3yrs; Boy Scouts of America – Troop Master**
- C. Community service/Religious organizations member of committee (activity)? Yes No
Commissioner of the Gravity and Drainage District#1, Livingston Parish. 2003-2005 _____

D. Community service/Religious organizations chairman of committee? Yes No

E. Community service/Religious organization offices held? Yes No

F. Community service recognition received? Yes No

5. General Information

A. Employment history, positions.

- 1/86 – 4/86 Cameron Iron Work, Drilling Equipment Representative**
- 4/86 – 11/87 Production Management Corporation, Production Operator**
- 11/87 – 2/93 Halliburton Logging Services, Senior Field Engineer**
- 2/93 – 12/01 RPM Engineering, Control Systems Department Manager**
- 12/01 – 9/09 Spectrum Engineering, Vice President of Houston Operations/Minority Owner**
- 9/09 – 7/14 Industrial Engineering Management, CEO/President/Founder**
- 7/14–Present NorthStar Energy Services, Vice President of Engineering**

B. Why do you want to serve on the LAPELS Board?

The engineering profession is extremely important to our society. Protecting the public is key to our professional function. I understand the balance that must take place between providing sound engineering to the public and the function of business. I am near the end of my career, retiring at the end of March '24, but still want to be of service.

C. What do you consider the most important function of the LAPELS Board?

Ensuring that the rules the engineering profession operate provide the public with competent engineers and to update those rules as technology changes and society change.

D. Is there anything that you would like to accomplish while serving on the LAPELS Board?

If I am selected to the LAPELS Board, I would work with the Legislative Branch to educated them on the the positive and negative aspects of AI.

E. Are there any issues affecting engineering and/or surveying that you feel need to be addressed by the Board?

LAPELS should investigate and begin (if they haven't already) make recommendations on potential laws to the Legislature on the subject of AI.

6. List the names, complete addresses and telephone numbers of three people who will serve as professional or character references. Two references must be registered Professional Engineers.

1. Name: Chris Odom, P.E.

Address: 11549 Ancestors Drive

City,State,Zip: Baton Rouge, La., 70810

Email: chris.odom@nses.com

Cell/Home Phone: 225-394-5350

Business Phone: 225-224-6305

2. Name: John Devin Cagnolatti, P.E.

Address: 20760 Plank Road

City,State,Zip: Zackary, La, 70791

Email: Devin.Cagnolatti@nses.com

Cell/Home Phone: 225-939-1939

Business Phone: 225-224-6333

3. Name: James Linn Corwin, P.E.

Address: 17613 Nine Oaks Ave

City,State,Zip: Baton Rouge, La 70817

Email: brcorwin2@yahoo.com

Cell/Home Phone: 225-335-3736

Business Phone: 225-751-8442

7. CERTIFICATION BY NOMINEE

Persons seeking nomination as a Louisiana Professional Engineering and Land Surveying Board (LAPELS) representative are expected to practice professionally in their area of practice and in their personal, political, and community life. This specifically includes **not** using any elected officials, or friends of elected officials, or friends that are part of the nomination committee, to influence selection by the nominating committee or by the Governor of Louisiana.

By my signature below, I agree to abide by the language above.

Craig M Borel 10/24/23
Signature Date

Craig Martin Borel
Print Name

100 Plantation Ridge Lane
Address

Lafayette, Louisiana, 70503
City, State, & Zip Code

337-534-0271 225-937-7441
Phone Number Cell Number

martyborel@gmail.com
E-mail

ADDITIONAL CERTIFICATION FOR RETIRED NOMINEES

Even though I am retired from a former _____ Practice position, I certify that I am engaged in the practice of engineering in one of the five functional areas of practice listed in LA R.S. 37:683(a) (education, government, industry, private practice, or construction). I further certify that I continue to be active in the _____ practice division of LES, and I currently have, and will maintain, an active PE license for the duration of my LAPELS service.

Signature Date

Clarence B. “Bart” Kemper, III
Lt. Colonel, US Army (Retired)
Professional Engineer, Board Certified Forensic Engineer
P.E., RPEQ, IntPE, CPEng, DFE, CFEI
Fellow, ASME and NSPE
bkemper@kempereng.com (+01) 225-324-8353

Education:

High School, 1983, Xaverian, Brooklyn, NY
BSME, May 1992, Louisiana State Univ., Baton Rouge, LA
Commissioned Army Reserves, Corps of Engineers (Distinguished Military Graduate)
US Army Corps of Engineers officer training through Command & General Staff College

Technical (selected items)

Finite Element Analysis, ANSYS OEM Course, Houston, TX. 1995
Accident Reconstruction, SAE Professional Educ. Center, Detroit, MI 1999
Base Camp Master Planning (US Army Corps of Engineers) Camp Shelby, MS 2005
Security Engineering & Blast Modeling (Protective Design Center, USACE) Baghdad, Iraq 2006
Supervisors Development Course (US Army) 2013
International Dynamics of Terrorism (INTAC) US Army Corps of Engineers, 2013
USACE Area Office University/Project Management, USACE, Winchester VA, 2013
“Train-the-Trainer” Kirk’s Fire Investigation, NAFE 2018 Winter Conference, Phoenix AZ 2018
Counter-Explosive Hazards Planner’s Course (US Counter Explosive Hazards Center), FT Wood MO 2018
Attack Site Forensic Investigation Course (National Ground Intelligence Center), FT Polk, LA 2019
Blaster’s Course and Annual Conference on Explosives and Blasting Technique (ISEE) 2019
Advanced Surface and Subsurface Drilling Blasting (Mo. Univ. of Science & Technology) 2019
Computational Fluid Dynamics for Structural Designers & Analysts (NAFEMS) 2021
Fire Investigation Training Program (NAFI), New Orleans, 2022

Professional:

Registered Professional Engineer (Multiple jurisdictions)
Board Certified Forensic Engineer (NAFE Diplomate, #965S)
National Association of Fire Investigators (NAFI), Certified Fire and Explosion Investigator
Fellow, American Society of Mechanical Engineers (F.ASME)

- Member of the Pressure Vessel for Human Occupancy (PVHO) Codes and Standards (C&S) Committee
Chair: Viewports Vice Chair: General Requirements Subcommittee
Subcommittees: Submersibles, Diving Systems, Design & Piping, Viewports, General Requirements, Post Construction (PVHO2); Medical Systems
Working Group: “Design by Analysis” for Glassy Polymers; Tunneling PVHOs
- Member, Mobile Uncrewed Systems, Verification & Validation C&S committees and subcommittees
- Active in the Safety Engineering & Risk Assessment Division (SERAD)

Fellow, National Society of Professional Engineers (F.NSPE)

- 2021-present NSPE Committee On Policy and Advocacy (COPA)
- 2019-present NSPE Software Certification Task Group
- 2018-2020 NSPE Taskforce on Emerging Technology

Senior Member, National Academy of Forensic Engineers (NAFE)

- 2020-present Editor-in-Chief, Journal of the National Academy of Forensic Engineers
- 2018-2020 Board of Directors Member as Vice President, Director
- 2017-present Peer review; Member of the Ethics committee

Member, Louisiana Engineering Society (LES) (State chapter of the NSPE)

- President, Baton Rouge Area Section (2001-2002), plus other Section and State offices

Professional Work History:

2006-current Kemper Engineering Services, LLC. Baton Rouge, La.

- Position: VP of Engineering, Principal Engineer
- Principal Responsibilities: Lead engineer, responsible for all work by staff and contract employees. Also in charge of the company's Outreach & Engagement efforts
- Principal Technical Areas: Mechanical design, Machine design, Structural design, Vessel and Piping Design & Analysis, Marine Engineering, Failure Analysis, Blast Modeling, Security Engineering, Finite Element Analysis, Solid Modeling, Kinematic Modeling, Hydraulics, Computational Fluid Dynamics modeling, Reliability, FMEA and Fitness-For-Service studies, Design of Experiment, Accident Reconstruction, Project Management

1992-2020 US Army Reserves (Corps of Engineers Officer)

- Highest Rank: Lieutenant Colonel (Retired)
- Past assignments:
 - Engineer staff officer, Deployable Command Post, 412th Theater Engineer Command, Vicksburg, MS
 - Design Chief, Eastern European Infrastructure Development, 301st FEST, Boulder CO
 - Commander, 475th Engineer Detachment (Explosive Hazards Coordination Cell), Vicksburg MS
 - Battalion Commander, 2-411th Log. Spt. Bn., 181st Infantry Brigade (1st Army Div West) Ft. McCoy, WI
 - Officer In Charge for USACE Resident Office, Gardez AFG. Responsible for construction in 5 provinces, \$350M.
 - Team Chief, US SOUTHCOM response team of the USACE Contingency Response Unit, Washington DC
 - Observer/Controller-Trainer, then O/C-T Team Chief. 1st Group, 1st Brigade, 75th Div., Houston TX
 - Plans Officer, 420th Engineer Brigade, Bryan Texas
 - Lead Engineer (FCCME), Det. 8, 412th Engineer Command supporting 130th Engineer Brigade, Balad, Iraq
 - Mechanical Eng. (FCCME) Det. 1, 412th Engineer Command supporting SETAF, US Army Europe
 - Mechanical Eng. (FCCME), 412th Engineer Command, Vicksburg, MS. AOR: Republic of Korea
 - Company Commander, A/489th Engineer Battalion (Corps)(Mech), Hot Springs, Ark
 - Acting Commander, XO, Platoon Leader, 285th Engineer Company (Combat Spt. Equipment) Baton Rouge, La

1997-2005 Kemper Imageering, Inc. Baton Rouge, La.

- Position: Vice President and Principal Engineer
 - Principal Responsibilities: Lead engineer, responsible for all work by staff and contract employees.
 - Principal Technical Areas: Mechanical design, Machine design, Structural design, Vessel and Piping Design & Analysis (API and ASME), Failure Analysis, Blast Modeling and Analysis, Finite Element Analysis, Solid Modeling, Kinematic Modeling, Computational Fluid Dynamics, Reliability, FMEA, Project Management
- Also a paid consultant for CDI Engineering, Baton Rouge, La 2000-2003.

1992-1997 KnightHawk Engineering, Inc., Baton Rouge, LA

- Position: Mechanical Engineer (EIT), later Marketing Director
- Principal Technical Areas: Pipe Stress, Piping & Vessel Design and Modifications (ASME & API), Hydraulics, Finite Element Analysis, Structural Design and Analysis, Machine Design, Kinematics, Field Work, Project Mgt..
- Other Responsibilities: Technical Editing, Marketing, Presentations, Photography.

1990-1992 Self-Employed/College Student, Baton Rouge, LA

- Freelance photographer for Baton Rouge Morning Advocate and State Times, Associated Press, various magazines. Freelance writer and graphic designer.
- Self-financed 100% of tuition, books, fees, plus most living expenses. Sr. Cadet, USAR.

1988-1990 U.S. Army, Fort Bragg, NC

- 82nd Airborne Division Public Affairs Office. Assistant NCO in charge, Darkroom Supervisor, Primary Trainer for new personnel. Co-ordinated and executed print and video coverage. Performed photogrammetry analysis for intelligence section. Participated in training as a "player" in urban warfare, combined arms operations, live fire exercises, airborne operations, and air assault operations as well as amphibious operations with the US Marine Corps. Worked with other units, to include 24th Inf. Div., 10th Mtn. Div, Special Forces, and PsyOps.
- The Paraglide. (Post newspaper, circ. 25,000.) Staff writer/photographer, Features Editor, Darkroom Supervisor.

1987-1988 Freelance Journalist, Writer, Photographer

1983-1986 US Army cadet

Licenses and Certifications:

Certifications

Certified Fire & Explosion Investigator (CFEI) #23392-15345

National Association of Fire Investigators (7/21/2022)

Diplomate of Forensic Engineering (DFE) (Board-certified Forensic Engineer) #965S

The Council of Engineering & Scientific Specialty Board (CESB) Initial 2017, Senior Grade 2019

Anti-Terrorism Officer (AT Level 2, 3)

Department of Defense (7/10/2006, 18/03/2015)

Combat Life Saver (Tactical Combat Casualty Care)

US Army; Camp Shelby, MS (7/27/2005) and Ft. McCoy (5/4/2013)

HAZMAT and Safety In Transportation

US Army Ordnance Corps (8/15/2005)

Construction Quality Management for Contractors

US Army Corps of Engineers (1/25/2004)

Professional Engineer (P.E.)

Alabama (#39546-E, 10/01/2020)

Colorado (#57870, 9/15/2020)

Louisiana (#27736, 1/28/1998) *Initial license*

Illinois (#62072210, 04/06/2020)

Mississippi (#3188, 08/17/2020)

Missouri (#2022020011, 6/2/2022)

Nevada (#28008, 8/10/2020)

North Carolina (#054730, 7/29/2022)

Texas (#85022, 3/26/1999)

Washington (#20117178, 9/21/2020)

International Engineer

International Board of Forensic Engineering Sciences (#0043, 09/15/2022)

Engineers Australia, National Engineering Register #8606293

Chartered Professional Engineer (CPEng)

International Professional Engineer (IntPE) (Australia)

Asia-Pacific Economic Cooperation (APEC) Engineer

Member of the Institution of Engineers Australia (MIEAus)

Registered Professional Engineer of Queensland (RPEQ) (#26396, 08/13/2021)

Professional Memberships

American Academy of Forensic Sciences (AAFS)

Army Engineer Association (Life Member)

American Society of Civil Engineers (ASCE)

Institution of Engineers Australia (EA)

American Society of Testing and Materials (ASTM)

International Association of Fire Investigators (IAFI)

Institute of Electrical and Electronics Engineers (IEEE)

International Society of Explosives Engineers (ISEE)

International Studies Association (ISA)

Marine Technology Society (MTS)

The International Association for the Engineering Modelling, Analysis and Simulation (NAFEMS)

National Association of Fire Investigators (NAFI)

National Fire Protection Association (NFPA)

Society of Automotive Engineers (SAE)

Society of American Military Engineers (SAME)

Society of Naval Architects and Marine Engineers (SNAME)

Engineering and Technical Experience:

Machine Design and Kinematics

- Evaluation of human/machine interactions, to include object manipulation, equipment operation, or impact.
- Design or evaluation of crane systems for fabrication yard, tractor crawler cranes, and hydraulic cranes.
- Design of lifting plans including modeling loads on hardware.
- Design of mechanical, mechanical/hydraulic, and mechanical/electrical power transmissions.
- Design of downhole tools.
- Design of K12-L0 vehicle barrier (impact and blast resistance).
- Design of novel vehicle arresting fence system.
- Design of novel subsurface oil recovery system.
- Conceptual design of recycling process, leading to an award of a patent.
- Design, evaluation and redesign of arresting cable and supports.
- Design, analysis, and review of tools, products, equipment, and controls for safety, ergonomics, and reliability
- Design, evaluation and modeling of elevators, walkways, conveyors, and manlifts.
- Design, evaluation and redesign of engines, pumps, fans, and compressors.
- Evaluation and redesign of process agitators and associated equipment.
- Evaluation, design, and redesign of skid-mounted systems and enclosures for equipment, including for lifts
- Evaluation and redesigns of bearings, linkages and power transmissions.
- Design of consumer products, leading to award of patents
- Equipment shock and impact, blast & ballistics
- Welding, fastener, shaft, cam, and spring design and analysis.

Failure Analysis

- Root cause analysis of a failed telescoping platform support in mineshaft.
- Root cause analysis of thermally-induced localized failure of water jacket on a reactor.
- Root cause analysis of a failed piping and pressure vessels.
- Root cause analysis of cracked tubing in heat exchanger, failed furnace tubing, failed process piping.
- Root cause analysis of failed power transmission (gears, linkages) with subsequent redesign.
- Root cause analysis of critical underperformance of water system
- Root cause analysis of failure of protective structures in blast and fragment loading
- Root cause analysis for failed marine and diving equipment.
- Root cause analysis for failed lifting equipment (booms, pad eyes, hooks, links, slings, wire ropes)
- Root cause analysis of biotech cartridge system used in testing biological samples
- Analysis of failed vehicle arresting system prototype with subsequent redesign.
- Analysis of failed bolting on process equipment mounts and structural supports.
- Analysis of failed welds on structural members subjected to upset loads.
- Analysis of failed welds within equipment and with equipment mounts.
- Root cause analysis of failed structural members.

Safety, Reliability, and Fitness-For-Service

- Failure Modes Effects Analysis for a variety of static and rotating equipment, vehicles/airframes, and systems
- Piping, pressure vessels, and saturation diving systems (API 579/ASME FFS1 and ASME PVHO)
- Evaluation of a new offshore pipeline laying system.
- Evaluate of tunneling equipment, including “dry diving” pressure vessel
- Evaluation of control systems for ergonomics, safety, and functional logic for industrial equipment.
- Lead investigator for safety reviews (through U.S. Army)
- Reliability study for increasing a compressor's service pressure.
- Reliability study for electro-mechanical controls for movable barriers
- Reliability study for electro-mechanical controls for life support of medical equipment
- Evaluation of equipment and walkways for ergonomic factors and compliance with safety standards.
- Evaluation of a several vehicle arresting barriers, to include predicting response and correlating with test data.
- Reliability study of incorrectly made modifications on API 650 vessel for compliance with API 653 repairs.
- Evaluation of agitators on vessel heads, including non-standard structural supports, composite material heads
- Reliability studies for weapons systems, to include fatigue analysis per HP White Protocols
- Reliability study for a new 55 cubic yard clamshell crane bucket design for 3rd party review.
- Evaluation of supports, clearances, & operation envelopes for equipment lifts, lifting items, and cranes

- Evaluation of static and rotating equipment components, including redesign for safety
- Evaluation of high pressure (10,000 psi) laboratory equipment.
- Evaluation and life prediction of pressure vessels subject to fatigue loads; redesign for enhanced life.
- Evaluation and life prediction of PVHO life support systems, including gas mixes and humidity.
- Evaluation and life predictions for equipment in tunnel-boring machines
- Evaluations of sites for blast, fire, ballistic hazards, and hazardous material release
- Design of Experiment in conjunction with failure analysis/forensics as well as design development
- Biomechanics and numerical modeling of injury modes
- Site evaluations for safety issues in operations, maintenance, material handling, vehicle operations, and other issues

Finite Element Analysis (Structural and Thermal)

- 2D Structural Modeling (stress, strain, deflection, buckling and frequency)
- 2D Thermal Modeling (heat transfer, fluid effects, thermally induced stress)
- 3D Modeling for stress and strain, and deflection (linear and nonlinear), including modeling metals, timber, plastics, rubbers, glass, composites, and complex material interactions such as concrete/rebar and steel/rubber/glass.
- 3D Modeling for fatigue, buckling, and frequency as well as dynamic and post-dynamic modeling.
- 3D Modeling for heat transfer and thermally induced stress (linear and nonlinear)
- 3D Modeling for transient loadings, cyclic loading, creep, and crack propagation
- 3D Modeling for coupled FEA/CFD heat transfer and thermally induced stress (linear and nonlinear)
- 3D Modeling of modeling of assemblies and composite materials
- 3D Modeling of beam, tensile fabric, air beams, cable-supported, truss, and plate structure systems
- 2D and 3D Modeling of electromagnetic fields
- 3D Modeling of multi-physics problems such as fluid flow (CFD) driven heat transfer and the structural effects (FEA) or the forces developed within a linkage assembly (Kinematics) and resultant stress (FEA)
- Expertise in conventional FEA (Solidworks, Cosmos/M, ANSYS, NASTRAN, ALGOR), explicit nonlinear (LS-DYNA, ABACUS), pipe stress (CAESAR II, Pipe Plus), and structural (STAAD)

Pipe Stress and Piping Design, Modification, and Repair

- ASME B31.1, B31.3, BPE; NFPA 20; API5L, FDA 3-A
- Pipe stress analysis and redesign of piping in tank farms and production units.
- Static and dynamic analyses with subsequent redesign of process piping, blowdown lines, and emergency systems
- Design and analysis of life-safety piping, firefighting supply, and sanitary systems.
- Site investigations for structural and flow issues; On-site and traditional pipe stress analysis.
- Pipe stress models of process furnaces and cracking units. (Borsig, Selas, & Kellogg)

Pressure Vessel & Heat Exchanger Design, Repair, and Modification

- Crude oil storage, Water storage, Chemical storage, Process coils, and Process reactors.
- API 620, 650, 653; API Plan 52/53 pot design; ASME Section VIII (Div. 1, 2, 3). ASME PVHO
- Support for fabricators per ASME Section VIII, App. 47
- Vessel design, optimization, vessel repair (API 653), vessel life expectancy study (API 579/ASME FFS1)
- Design of acrylic elements for pressure vessels (PVHO-1, PVHO-2, Section VIII App. 48)
- Reactors, agitators, separators, and other process-related pressure vessels
- Pressure vessel fatigue, failure, and reliability evaluations
- Pressure vessel design for marine topsides design and blast resistance
- USCG certification for saturation diving equipment (PVHO)
- Life support design for PVHO's (diving, tunneling, submersibles, hyperbaric medical systems)
- Heat exchanger design; heat exchanger component design. (ASME, TEMA, API 660)

Hydraulics, Pumps, Fans, and Fluid Flow (Gas and Liquid)

- Design Audit of hydraulically-operated equipment, including clam shucking plant, vehicle barrier, crane system
- Design Audit of water lines for a nuclear facility, municipal water supply, industrial water supply
- Design Audit of incinerators for air flow, combustion, and feedstock issues, including fans and vane effects
- Design and evaluations of pumps, compressors, agitators, and mixers, to include CFD modeling.
- Design and evaluations of fans, blowers, air handlers, gas nozzles, and gas mixers to include CFD modeling.
- Design audit and redesign of biomedical device for pressurized breathing, including CFD of gas flow and mixing.

- Design and 3rd party reviews for flows involving non-Newtonian regimes including slurries, blood, resins and plastics, and heavy hydrocarbons.
- Flow analysis for marine hulls, ROV, and related equipment, including control surfaces
- Troubleshooting and redesign of filtration systems, to include modeling porous membranes, filter pads, and screens
- Water flow modeling (CFD) for wet wells, pumps, piping, knock out pots, heat exchangers, and screening systems.
- Aerodynamic analysis of commercial trucking equipment attachment, including CFD modeling.
- Aerodynamic analysis (CFD) for subsonic, transonic, supersonic conditions on lifting bodies, projectiles, airframes
- Power calculations, efficiency calculations, and sizing of pumps, fans, and hydraulic equipment.
- Sized and designed piping systems for industrial and utility applications, including hydraulic loss calculations
- Process analysis for fluid and thermal characteristics, including transient and upset conditions.
- Dynamic analysis of process blowdown system.
- Water flow modeling (CFD) for marine hulls and marine structures.
- Gas flow within equipment enclosures with venting to outside, to include CFD modeling with heat transfer.
- Cooling, heating, and gas mix/humidity modeling for HVAC and PVHO life support and equipment loads, including coupled FEA/CFD modeling.
- Fluid flow for sediment knockout system, to include CFD modeling.
- Study of high pressure air distribution header, including CFD modeling.
- Fire and shock wave modeling
- Design review of incineration system, to include CFD of air intake system and combustion area.
- Design of fluid/fluid and gas/fluid heat exchangers, including a one-off diesel-fired system
- Computational Fluid Dynamic modeling liquids and gases for heat transfer, pressure distribution, thermal distribution, velocities, and vorticity. 2-D and 3-D modeling. Newtonian and non-Newtonian flows.

Electrical, Controls, Artificial Intelligence, Machine Learning

- Design of control system for movable barrier system
- Design of control system for medical system
- Design of control system for mobility assistance system
- Review of power distribution for expedient housing
- Programming controls and operations for computer control
- Review of material to be processed for Machine Learning
- Review of Machine Learning outputs to established literature as 3rd party review
- Use of AI and Machine Learning for forensic applications
- Parameter development for uncrewed/autonomous systems
- Design of electromagnetic activation and object manipulation
- Design of equipment in support of commercial power in overseas applications
- Review of power distribution for permanent structures
- Review of medical system for NFPA 99 compliance
- Complex firing systems for demolition
- RF field analysis for counter-IED operations
- RF interference studies for electronic security
- Modeling electric surge in circuits
- Control system modeling, including response lag tolerancing
- Electromagnetic field modeling (Finite Element Analysis, equation solvers)
- 3D modeling of lighting system for illumination, then designing power network
- Troubleshooting pump/motor/power issues
- Troubleshooting prototype control systems
- Review of electrical systems for root cause for fire

Structural (Mechanical, Marine, and Civil)

- Shell and head calculations for pressure vessels and components. (API, ASME Sect. VIII, Div. 1, 2, 3, PVHO)
- Beam and truss design, analysis, and selection., moment connections for steel structures (AISC)
- Reinforced concrete design, Fiber-reinforced concrete design (ACI)
- Novel application of shotcrete for use in pressure vessel.
- Site investigations, fitness for service, corrosion evaluations
- Design of novel marine hull, including hard points for equipment, lift/launch, and/or weapons
- Evaluation of marine hulls (self-propelled lifeboats, submersible hulls & viewports, ROVs) for structural response
- Evaluation of damaged, corroded, and modified structures (buildings, equipment) for remaining life and loading.

- Design and analysis of plate, rod, piping, tube, and sheet metal applications.
- Design and analysis of metal (steel, aluminum, titanium, copper, exotic alloys), timber, plastic, and composite structures ranging from buildings to airframes and marine hulls to equipment housings and mechanical structures.
- Lifting and hoisting equipment (hooks, links, hard points, etc), lift plans, incl. TIA332, ANSI A10.48, ASME BTH
- Beam and truss calculations and optimization for crane applications. (AISC)
- Beam and truss calculations and optimization for pressure vessel, vessel bed supports, pipe supports & flexibility
- Design for transient conditions such as blast, fire, high winds, seismic, vibration, and snow loads.

Medical Devices, Biomechanics, and Food Grade design

- Prototype development and analysis, patents, for mechanical system to insert a device into a cavity.
- Prototype development and analysis for a therapeutic breathing system.
- Prototype development and analysis for pressure sore reduction system
- Prototype development and analysis for novel therapeutic pressurized habitat
- Prototype development of wheelchair modifications (vehicle anchor system, therapeutic mechanisms)
- Troubleshooting device for USP 71 sterility test protocols, including using nonlinear FEA and CFD
- Design of specialized equipment used in food processing
- Analysis and redesign of plastic foam food packaging
- Industrial design for food service consumer products
- Ergonomics and human factors, usability studies, safety assessments
- Damage mechanisms to humans and animals such as acceleration, impact, shock, blast, fire
- Developed in committee codes and standards for hyperbaric medical systems, including submission procedures

Civil (through U.S. Army Corps of Engineers) (USACE)

- Infrastructure assessment (US, Overseas permissive and non-permissive environments)
- Basecamp design and management, facilities management, security management
- Industrial site assessments
- Facility utilities design and management
- Airfield siting, design, and management, both expeditionary and enduring (fixed and rotorwing)
- Concrete walls, slabs, towers, and foundations.
- Fortifications, trusses, walls, towers, buildings, and other structures. (Steel, concrete, masonry, timber)
- Road and runway design, construction, assessment and repair
- Sewer design, including pump stations, gravity lines, inspection chambers, manhole access, and related structures
- Earthmoving operations; pit operations.
- Drainage, Pipeline, Culvert, and Water Control Structure studies, design, construction, and repair
- Bridge design, evaluation, construction, and repair
- Pier, piling, power pole, billboard, signage, and gate design, installation, and maintenance
- Water and sewage design, evaluation, construction, and repair
- Flood and hurricane impact on structures and infrastructure as well as recovery plans
- Explosive and non-explosive demolition, explosive charge design
- Protective structure design, ballistic modeling, fire hazard, explosive hazard, and structural evaluation

Force Protection, Explosives, Fire, Ballistics, and Security Engineering

- Carried out own operation planning and intelligence, planned and executed over 200 “outside the wire” missions in Iraq and Afghanistan, to include changing missions to avoid enemy engagements.
- Analyzed potential and actual effects of explosives, munitions, fires, chemicals, and pyrotechnics on industrial infrastructure, civil infrastructure, vehicles, equipment, products and personnel, including use of blast analysis and structural analysis.
- Theater-specific doctrine development for counter explosive hazard operations and planning
- Post-blast analysis of Improvised Explosive Device (IED) and indirect fire attacks.
- Analyzed potential and actual terminal effects of enemy sabotage of critical infrastructure, including blast & fragment analysis, structural analysis, and hazardous material release
- Siting, design, and modification of basecamps, airfields, processing sites, and other fixed or expeditionary facilities to include hazard, construction, vulnerability, environmental, and civil/military impact assessments.
- Analyzed and designed perimeters, gates, and barriers up to and beyond K12 standards, to include lethal and nonlethal effects.
- “Red Cell” planning to war game potential hostile intent and test designs and plans by others, to include estimating potential damage and loss of life in multi-echelon, multi-phase scenarios.

- Analyzed and designed industrial sites, base camps, check points, airfields, and other facilities for vulnerabilities from direct and indirect fire, sabotage, and infiltration, including line of sight analysis, blast analysis, stand off requirements, and terrain analysis with respect to terrain impact on enemy and friendly courses of action.
- Plan, coordinate, and conduct route clearance and route clearance management, to include planning supporting fires, air cover, response teams, and associated requirements at the tactical, operational, and theater levels
- Analyzed vulnerabilities of fuel blivets to sabotage, blast, and combustion, developed revised site design, to include blast analysis from BLEVE, combustion calculations, and heat transfer modeling and calculations.
- Analyzed military and industrial site vulnerabilities to vehicle threat (impact and car bombs) for design of vehicle arresting systems, to include blast modeling and the nonlinear response of structures to vehicle impact and blast.
- Designed industrial and marine equipment to withstand specific blast parameters, including using blast modeling and modeling the nonlinear structural response to blasts.
- Designed shape charges, borehole shots, steel cutting shots, and cratering shots, including initiation sequences.
- Military application of explosives, to include mine warfare planning and supervision, IED awareness, IED defeat, obstacle development/construction/reduction, explosive and mechanical breaching, pyrotechnics, flame effects, boobytraps, and tactical applications. Includes being primary instructor, safety officer, and training planner.

Forensic

- Technical investigations and research, to include incident site investigations.
- Assessing engineering simulations, artificial intelligence, and machine learning applications for Rule 702 review
- Failure analyses of equipment and equipment components.
- Vehicle kinematics, accident reconstructions and illustrative recreations.
- Fire and explosive event investigations
- Industrial reconstructions and illustrative recreations, to include equipment operations, lift procedures, ergonomics
- Hazard analysis (blast, ballistics, heat, dropping/falling, fire, chemical release, machinery, operational procedures)
- Reliability studies and design audits, Product liability review, Ergonomic reviews.
- Correlating physical events and mechanics to injury modes and medical evidence.
- Mathematical modeling and computer-based simulations/recreations.
- Site investigations, including post-storm, post-fire, and similar post-event evaluations and data collection
- Technical analysis and interpretation of photographs, videos, and animations, including photogrammetry.
- Preparation and production of technical presentations and animations (2-D and 3-D)
- Engineering ethics evaluation
- Intellectual property disputes (patents, proprietary information, trade secrets)
- Independent 3rd party reviews of engineering opinions and methods

Project Management

- Planned and managed construction and construction support operations worth over \$350M over 5 Afghan provinces
- Planned, managed, executed, and presented engineering projects involving 1-15 technical professionals
- Planned, managed, and executed overseas design projects while working with a dispersed technical team and coordinating with 5 different construction organizations in two countries (300 people involved, \$85 million in work)
- Planned, managed, and executed construction projects involving 5-60 workers and supervisors split over several work sites, including projects in which the sites were located in different states.
- Planned and managed the integration of advanced control systems into various equipment systems and vehicles.
- Developed project framework to enable and integrate AI-based inputs into the system.
- Planned, managed, and executed equipment manufacturing/fabrication projects involving multiple vendors.
- Developed engineering solutions and assisted in planning commercial diving operations
- Planned, managed, and submitted multi-discipline proposals for federal and international projects, to include multi-million dollar USACE Military Construction projects approved by the US Congress for overseas construction
- Planned and managed multi-tracked technical training programs.
- Planned and coordinated emergency response for contingency operations for the US, South America, Europe, the Korean peninsula, and Vietnam
- Planned and supervised military engineering projects to include: concrete retaining walls; drainage rehabilitation; road construction, road improvements; building rehabilitation; runway construction, runway repair, airfield design, basecamp design and upgrades, bridging; explosive and non-explosive demolitions; combat engineer operations.
- Planned and supervised military training for heavy equipment operator proficiency, time management, project management, weapons qualification, counter-IED, anti-terrorism, and deployment operations.
- Evaluated infrastructure in North America, South America, Europe, Asia, and the Middle East

Volunteer Work:

2000-2018: Louisiana State University (LSU), College of Engineering, Capstone Design Course:

- Industrial Review Panel, evaluates senior projects 1st semester (design) and 2nd semester (prototype).
- Provide university-level instruction: engineering ethics; licensure; use of engineering standards
- Provide mentorship to the students throughout the year. Sponsor and coach design teams.

2015-present: University of Louisiana Lafayette (ULL), College of Engineering guest lecturer

2022-present: Southern University, Baton Rouge, College of Engineering and Science, guest lecturer

1997-present: ASME and ASME Codes and Standards

- 2008-present: Pressure Vessels for Human Occupancy (PVHO) Committee and Subcommittees
 - 2016-current, Chair, Viewports subcommittee
 - 2019-present Chair, Task Force for “Design By Analysis” for glassy polymers
 - 2017-current, Vice-Chair, General Requirements subcommittee
 - Subcommittees: Viewports, Diving, Submarines, Medical Systems, Design & Piping, General Requirements, Post-Construction, Special Projects Task Group, Tunneling Task Group
- 2023-Present: Verification, Validation, and Uncertainty Quantification Codes & Standards, Subcommittee for Artificial Intelligence and Machine Learning (VVUQ70) (Contributing Member)
- 2022-Present: Verification, Validation, and Uncertainty Quantification Codes & Standards, Subcommittee for Solid Mechanics (VVUQ10)
- 2019-present: Charter member, Mobile Unmanned Systems (MUS) Codes & Standards
- 2009-2012: Charter member, Risk Assessment and Mitigation for Critical Asset Protection (RAMCAP)
- 1997-1999 Baton Rouge, La. Section Newsletter editor

2017-present: ASTM Codes and Standards Committees

- 2017-present: E58 Committee on Forensic Engineering
- 2022-present: E54 Committee on Homeland Security Applications

2017-present: National Academy of Forensic Engineering

- 2020-Present: Editor In Chief, Journal of the National Academy of Forensic Engineers
- 2017-Present: Peer Review for Journal of the NAFE; Ethics committee
- 2018-2020: Board Member (Director, Vice President)

2017-present: Marine Technology Society

- 2015-present: Submarines (formerly Manned Underwater Vehicle) member; Editor, technical collections
- 2017-present: Reviewer for Marine Technology Society Journal (Peer Reviewed Journal)

2011-2012: Louisiana Professional Engineering and Land Surveying Board (LAPELS)

- Development team for the Standards of Practices for Mechanical Engineering.

2018-present: National Society of Professional Engineers (NSPE)

- 2023-current Committee on Emerging Technologies
- 2021-current Committee On Policy and Advocacy
- 2019-2023 Software Credentialing Task Force
- 2018-2020 Emerging Technologies Task Force

1992-present: Louisiana Engineering Society (LES), a chapter of the National Society of Professional Engineers

- 1996-2002 Baton Rouge Chapter: Newsletter/PR; Successive elected offices including Chapter President
- 1997-1998 State Chairman for Publicity and Media Relations
- 2017-current: Conference Committee. Assist in organizing and managing several annual conferences
- Participated in MATHCOUNTS, “Engineer in the Classroom” (teaching 7th and 8th graders)

Patents:

- U.S. and International Patents CA2814827A1, CN103209663A, EP2629721A2, WO2012054466A2, WO2012054466A3, EP269721A4, EP2629721B1, US9492312, JP5990524B2 “Methods and Apparatus for Inserting A Device Or Pharmaceutical Into A Body Cavity” (Co-Inventor) US grant date 15 Nov. 2016

- U.S. Patents 8919622, 8919623 "Hands Free Beverage Carrier That Attaches To A Person's Clothing Or A Wearable Accessory" (Co-Inventor), both granted 30 Dec. 2014

- Patent, Republic of Ireland, "Total Municipal Solid Waste (MSW) recovery facility including power generation capability." Grant Number 84128, grant date 8 Feb. 2006. IE20010276A1, 2002.

IP Development: Developed drawings and other support for client seeking patents. Researched existing patents to assist clients in developing new IP. Examined claims of alleged IP infringement.

Peer Reviewed Papers (* indicates associated presentation)

Accepted for Nov. 2024 at ASME Int'l Mechanical Engineering Congress and Exposition

Hurd, D., B. Kemper, T. Nappi, K.K. Williams (2023) "Deterministic Methods for Verification, Validation, and Uncertainty Quantification in Engineering Code Applications." IMECE2023-114382 *Proceedings of the ASME Int'l Mechanical Engineering Congress and Exposition*, Oct. 29-Nov. 2 2023, New Orleans, LA.

Kemper, B., K. Williams (2023) "Review of Life Limitations For Acrylic Windows In Pressure Vessels." IMECE2023-114381 *Proceedings of the ASME Int'l Mechanical Engineering Congress and Exposition*, Oct. 29-Nov. 2 2023, New Orleans, LA.

Kemper, B., P. LaPlante (2023) "Addressing Software/Hardware Challenges by Incorporating System Software Integrator Certification." IMECE2023-114381 *Proceedings of the ASME Int'l Mechanical Engineering Congress and Exposition*, Oct. 29-Nov. 2 2023, New Orleans, LA.

Published as of 1 Sept. 2023

Kemper, B. (2023)* "Application of VVUQ Concepts to ASME Codes and Standards for Pressure Vessels," ASME Verification, Validation, and Uncertainty Quantification 2023 (VVUQ2023), Baltimore, MD, USA, May 2023. DOI: 10.1115/VVUQ2023-108506

Kemper, B., Stromer, J. (2023)* "Evolving Methods for Design by Analysis for Glassy Polymers in Marine Applications." Offshore Technology Conference, Houston, Texas, USA, May 2023. DOI: 10.4043/32369-MS

Kemper, B. (2022)* "Artificial Intelligence and Stochastic Terrorism – Should it be done?" 1st Workshop for Assured Autonomy, Artificial Intelligence, and Machine Learning, *Proceedings of the 33rd Int'l Symposium on Software Reliability Engineering*. (Charlotte, NC) DOI 10.1109/ISSREW55968.2022.00091

Kemper, B., K. Williams (2021)* "Attempting to Establish Design Margins for Glassy Polymers in Critical Structural Service." *Proceedings of the ASME 2021 International Mechanical Engineering Congress and Exposition*. (Vol. 13) *Safety Engineering and Risk Analysis* DOI: 10.1115/IMECE2021-71836

Kemper, B., L. Cross (2021)*. "Computational Fluid Dynamics Modeling of a Commercial Diving Incident." *Journal of the National Academy of Forensic Engineers*, 38(1). DOI: 10.51501/jotnafe.v38i1.66

Kemper, B. (2021)*. "Validation of Modern Finite Methods For Glassy Polymers Using Historical Studies." *Proceedings of ASME Pressure Vessel and Piping Conference, 2021* (Virtual) DOI: 10.1115/PVP2021-62146

Kemper, B., G. Richards, T. Nappi, V. Thipparthi, A. Escobar.* (2021) "Failure Modes for Acrylic Polymers in Section VIII Pressure Vessels." *Proceedings of ASME Pressure Vessel and Piping Conference, 2021* (Virtual), DOI: 10.1115/PVP2021-62148

Kemper, B. (2020)*. "Misapplication of Pressure Vessel Codes in Forensic Applications." *Journal of the National Academy of Forensic Engineers*, 37(1). DOI: 10.51501/jotnafe.v37i1.67

Kemper, B., L. Cross. (2020) "Developing 'Design By Analysis' methodology for windows for Pressure Vessels for Human Occupancy." *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems Part B: Mechanical Engineering*, Volume 6, Issue 3, Sept. 2020. DOI: 10.1115/1.4046742

Kemper, B. (2019) "Blast Modeling for Facility Security Management." *Proceedings of the 45th Annual Conference on Explosives and Blasting Techniques*, Jan. 27-30, 2019. International Society of Explosives Engineers.

Kemper, B. (2013)*. "Criteria For Eliminating Cyclic Limit For PVHO Flat Disc Windows." *Joint ASME/USCG Workshop on Marine Technology & Standards*. DOI: 10.1115/MTS2013-0323

Kemper, B. (2013)*. “Jurisdictional Acceptance of Non-ASME Pressure Vessels for Human Occupancy”. *Joint ASME/USCG Workshop on Marine Technology & Stds.* DOI: 10.1115/MTS2013-0322

Kemper, B. (2007)* “Risk Mitigation and Reliability Lessons Learned From Iraq”. *Volume 14: Safety Engineering, Risk Analysis and Reliability Methods.* ASME, 2007 DOI: 10.1115/imece2007-42142

Kemper, B. (2004) “Evil Intent and Design Responsibility.” *Science and Engineering Ethics*, 10(2), 303--309. Opragen Publishing, 2004. DOI:10.1007/s11948-004-0026-4

Kemper, B. (2002)* "Application of Annealed Cables for Vehicle Arresting Barriers." *Proceedings of the ASME 2002 International Mechanical Engineering Congress and Exposition. Safety Engineering and Risk Analysis.* pp. 61-66. ASME. DOI: 10.1115/IMECE2002-32464

Select Conference Papers, Publications and Presentations (*associated presentation)

“Artificial Intelligence, Open Source Software, Trust, and their implications in foreign relations.” Also Chair for the panel “Diverse Geopolitical Analysis.” ISA South 2023, International Studies Association. (Atlanta, Ga.)

“Industry Leaders’ Perspectives and Outlook of Systems and Software Engineering for the Industrial Engineering Community” Ben Amaba, Sonatype; Leon McGinnis, Georgia Tech University, Atlanta, GA; Dr. Phil Laplante, Penn State University; Dr. Jeff Daniels, Lockheed Martin Corporation; Cliff DeBerry, Memphis Light Gas and Water; Bart Kemper, Kemper Engineering Services, LLC; Andrei Popa, Chevron Technical Center; Kent Welter, NuScale Power; Eren Yilmaz, Black and Decker, Winspyre. Moderator: Krista Kemper, Kemper Engineering Service. Institute of Industrial & Systems Engineering (IISE) Annual Meeting, New Orleans, La. May 2023

“Security and the Infrastructure Design.” Part of the panel discussion “Complexity & Security: Theorizing Within and Beyond Limits”, International Studies Association Annual Conference, Montréal, Canada. March 2023

“Don’t Do That! Lessons learned in forensic engineering.” 27th Louisiana Joint Engineering Societies Conference. Lafayette, La. Feb. 2023

Kemper, B.* “The Perils of Using Linear Analysis for Metal Component Failures” *Proceedings of American Academy of Forensic Scientists 75th Annual Scientific Meeting*, Feb. 16-17, 2023. (Orlando, FL)

Kemper B.; K. Kemper; Q. Moore; A. San Miguel*. “Advancing Towards Design By Analysis for Glassy Polymers”. *Proc. of 19th Submarine Symp*, Marine Technology Society. Nov. 30-Dec.2, 2022 (New Orleans, La.)

Kemper, B.* “Simulation Triad for Evaluating Use of Engineering Simulation.” *Proceedings of American Academy of Forensic Scientists 74th Annual Scientific Meeting*, Feb. 21-25, 2022. (Seattle, Wa.)

“Throwing the Flag: Guidelines for Assessing Engineering Simulation.” National Academy of Forensic Engineers Winter Meeting, Tucson, Az. Jan. 6, 2022

Kemper, K.; Kemper B.; Cross, L.; Pinner, A.; Thipparthi, V.; Moore, Q.; Escobar, A. “THE ALEXANDER Research Submersible”. OCEAN SHOTS, National Academy of Sciences. Sept. 15, 2021

“COVID-19 Engineering Mitigations and Liability” with Curt Freedman, PE. National Academy of Forensic Engineers Summer Conference, Providence, Rhode Island. July 31 2021

“Modern Capabilities of Forensic Engineering and Technical Expertise.” Presented to the Uzbekistan Republic’s *Suleymanova Centre Of Forensic Expertise*, in collaboration with the UN Office on Drugs and Crime (UNODC) and the American Academy of Forensic Sciences (AAFS). June 30, 2021

Kemper, B.* “Fatal Hyperbaric Treatment Explosion Investigation Incorporating Engineering Simulations with Verification & Validation.” *Proceedings of American Academy of Forensic Scientists 73rd Annual Scientific Meeting* Feb. 15-19, 2021. (Virtual)

Kemper, B., L. Cross. “Developing ‘Design by Analysis’ Methods for Glassy Polymers for Pressure Vessels.” Poster, Pressure Vessel track. *ASME International Mechanical Congress & Exposition.* Nov. 16-19, 2020 (Virtual)

Kemper, K., B. Kemper*. “Debarkation Syndrome as a Technology-Induced Neurological Condition.” Poster, Biomedical track. *ASME International Mechanical Congress & Exposition.* Nov. 16-19, 2020 (Virtual)

“Design by Analysis for Glassy Polymer Structures.” *Underwater Intervention 2020.* New Orleans, La. Feb. 2020

“Debarkation Syndrome and Commercial Submarines.” With Krista Kemper. *17th Manned Underwater Vehicles Symposium.* New Orleans, La. Feb. 2020

“Introduction to Forensic Engineering and the National Academy of Forensic Engineers.” 24th Louisiana Joint Engineering Societies Conference. Lafayette, La. Jan. 2020

Kemper, B.; K. Kemper; J. Cutter*. “NEMO joint design in ASME PVHO Code”. *16th Manned Underwater Vehicles Symp.*, Marine Technology Society, New Orleans, La. Feb. 2019. DOI: 10.13140/RG.2.2.24600.85768/1

Kemper, B.* “Shortfalls in polymer specifications for PVHOs.” *Proceedings of Underwater Intervention 2019*. New Orleans, La. Feb. 2019. DOI: 10.13140/RG.2.2.32884.60807/1

Kemper, B., Cross, L.*, “Heat Retention and Structural Integrity of Glassy Polymer Windows,” 15th Manned Underwater Vehicle Symp., Marine Tech. Soc., New Orleans, LA, Feb. 2018 DOI: 10.13140/RG.2.2.36321.02405

Kemper, C. “Truck Bombs and Standoff: Using Blast Modeling for Installation Threat Management.” *Engineer, The Professional Bulletin of Army Engineers*, Sept-Dec. 2017

“Forensic Investigation of Oxygen Chamber Fire”. ASME PVHO Codes & Standards, San Diego, CA Feb. 2017.

“Design of Undersea Viewports for Pressures over 10,000 PSI.” With Linda Cross, EI. 14th Manned Underwater Vehicles Symposium, Underwater Intervention, New Orleans, February 2017 DOI: 10.13140/RG.2.2.10758.27204

“Use of Finite Element Analysis in Designing Acrylic Structures for Fatigue and Stress.” With Krista Wohlfeil 13th Manned Underwater Vehicles Symposium, , New Orleans, February 2016. DOI: 10.13140/RG.2.2.26146.12482/2

“Contracting Engineering & Construction in Expeditionary Environments.” 20th Louisiana Joint Engineering Societies Conference. Lafayette, La. Jan. 2016

“Novel Subsurface Oil Recovery System Concept.” With Krista Kemper. *Underwater Intervention 2013*, New Orleans La, Jan. 2013.

Wohlfeil, K., Kemper, B.* “US Coast Guard Acceptance of Non-ASME Pressure Vessels for Human Occupancy.” *Proceedings of Underwater Intervention 2012*. Published by the Marine Technology Society, Jan. 2012.

Kemper, B. “Mitigating Potentially Weaponized Natural Phenomena.” *Responder Rundown Newsletter*. CBRNE Resource Network. Dec. 2011.

“Introduction to Engineering Codes & Standards” Presented to the LSU Mechanical Engineering Senior Capstone Design course. 2010 - 2012, 2015 Also University of Louisiana (Lafayette), 2015-2022, Southern University (Baton Rouge) 2022

Kemper, B., Wohlfeil, K. “HE Sorbent/Barrier Belt Independent Technical Review”. May 2010 Report number: ONX100510. DOI: 10.13140/RG.2.2.32411.36646

“Performance Based Standards: The New Approach” 14th JESC, Jan. 2010 in Lafayette, La.

“Introduction to Security Engineering.” 13th Joint Engineering Societies Conference, Jan. 2009 in Lafayette, La.

“Engineering Lessons Learned in Iraq.” 11th Joint Engineering Societies Conference, Jan. 2007 in Baton Rouge, La. as well as to the Baton Rouge Section of ASME December, 2008.

Kemper, C. “More Than Management.” *Engineer, the Professional Bulletin of Army Engineers*, July-Sept. 2006

Kemper, C. “Building a Construction Management Section for Iraq.” *Army Engineer Magazine*, July-August 2006.

“Using Advanced Engineering Software in Forward Deployed Areas” US Armed Forces Base Camp Design Workshop, May 2005 at the United States Military Academy, West Point NY.

“Evil Intent and Design Responsibility.” Ethics in Engineering Conference, Oct. 15, 2003, New Orleans, La.; 7th Joint Eng. Soc. Conf., Feb. 2004, Baton Rouge, La.; US Base Camp Design Workshop, West Point NY April 2004.

“Professional Licensure and Ethics.” Regional speaker for the National Council of Examiners for Engineering and Surveying (NCEES), 2001-2003. Exam review and validation May 2002.

“The New Professional Engineer Exam.” Presented to the Baton Rouge Section of ASME Nov. 2002.

Selected and participated in reviewing and validating the U.S. national Principles and Practice Examination for Mechanical Engineering. (NCEES, Atlanta, Ga. May 2002.)

“Professional Licensure and Ethics.” Regional speaker for the National Council of Examiners for Engineering and Surveying (NCEES), 2001-2003.

Committee Publications:

Emerging Technology: A Public Regulatory Policy Guide. Member of the Emerging Technology Task Force. National Society of Professional Engineers. September 2020.

ASME PVHO-1-2019 Safety Standard for Pressure Vessels for Human Occupancy (An American National Standard). Main committee member and member of all subcommittees. American Society of Mechanical Engineers, NY NY, 2019. Also co-authored the 2012, 2016 versions.

ASME PVHO-2-2019 Safety Standard for Pressure Vessels for Human Occupancy: In Service Guidelines (An American National Standard). Main committee member and member of the Post-Construction subcommittees. American Society of Mechanical Engineers, NY NY, 2019. Also co-authored the 2012, 2016 versions.

Journal of the National Academy of Forensic Engineers. ISSN: 2379-3252 Editor In Chief, 2020-current; Associate Editor, Peer Reviewer 2017-2020

Guidelines for Engineering Standards of Practice for the Design of Mechanical Systems, Louisiana State Board of Registration for Professional Engineers and Land Surveyors (LAPELS). January 2012.

STP-PT-047 Principles of Safety and Performance for Medical Hyperbaric Chambers: Guidelines for Regulatory Submissions. Member of the ASME PVHO Subcommittee on Medical Hyperbaric Systems. June 30, 2011

SeaSteady Engineering Report Part 1: Assumptions & Methodology. Primary author: Eelco Hoogendoorn. Technical Review: Miguel Pardo, Bart Kemper, Alexia Aubault, Michael Santos. February, 2011

Cited as Primary Source:

Multiple interviews, US and International media regarding TITAN Submersible tragedy. June-August 2023

UK Patent GB2600490A, "Oil capturing apparatus" Robert Brian Ablett. 04 May 2022

Laplante, P., Amaba, B., "Artificial Intelligence in Critical Infrastructure Systems" in *Computer*, Vol. 54, No. 10, pp. 14-24, 2021. doi: 10.1109/MC.2021.3055892

Evans, D., Willis, J. "How Small Arms Capabilities Shape Decisions at Battalion and Brigade Level". DTIC Accession Number ADA56719 Report date 27 Sept. 2012.

Thompson, K. T., & Trainor, T. E. "Developing Base Camps to Support Military Operations Worldwide". *Proceedings from the 2005 ASEM National Conference*, Virginia Beach, VA

Select Conferences:

4th Annual International Scientific and Practical Conference (Kyiv Scientific Research Institute of Forensic Expertise), Kyiv, UKR, 2022

1st Workshop for Assured Autonomy, Artificial Intelligence, and Machine Learning, Charlotte NC 2022

US Decade of the Ocean Launch (National Academies of Sciences, Engineering, Medicine), Virtual, 2021

7th World Congress of Biomechanics, Boston, MA 2014

US Armed Forces Base Camp Design Workshop, West Point NY 2004, 2005

2nd International IED Defeat Workshop, Fort Irwin CA 2005

Ethics and Social Responsibility in Engineering and Technology, New Orleans LA 2003

American Academy of Forensic Scientists

Annual Scientific Conference of AAFS; 2021-2023

American Society of Industrial Security

Physical Security: Advanced Applications and Technology; 2005

American Society of Mechanical Engineers

International Mechanical Engineering Conference and Exposition; 2002, 2007, 2020, 2021

Pressure Vessel and Piping Conference; 2021

Joint ASME/USCG Workshop on Marine Technology & Standards; 2008, 2013

Verification, Validation, and Uncertainty Quantification; 2021, 2023

International Studies Association

ISA Annual Meeting: 2023 (Montréal, CAN)

ISA South: 2023

International Society of Explosives Engineers

Annual Conference on Explosives and Blasting Techniques; 2019

Louisiana Engineering Society

Joint Engineering Societies Conference; 1995-2001, 2004, 2007-2011, 2016, 2020, 2023

Marine Technology Society

Offshore Technology Conference, Houston, TX 2011, 2012, 2023

Submarine Symposium (Underwater Intervention, New Orleans, LA); 2012-13, 2016-20, 2022

National Academy of Forensic Engineers

Winter Conference; 2017-2023

Summer Conference; 2021, 2023

National Society of Professional Engineers

NSPECon; 2023

Honors and Recognitions:

Fellow, National Society of Professional Engineers (April 2023)

Dudley Hixon-Bobby Price National Professional Achievement Award, Louisiana Engineering Society (Feb. 2023)

Fellow, American Society of Mechanical Engineers (March 2022)

ASME Certificate of Acclamation for contributions for the Safety Standard PVHO-1: 2016 (October, 2016)

2007 Army Engineer of the Year; Top Ten Federal Engineer of the Year (NSPE's Federal Engineer of the Year recognition program, presented 22 Feb. 2007 at the National Press Club, Washington DC)

Young Engineer of the Year, Baton Rouge Chapter of the LES, Feb. 2000

Chrome Shaft Award. Presented by the LSU Mechanical Engineering Faculty. May 1992.

Military awards include: Bronze Star (w/Oak Leaf Cluster), Meritorious Service Medal (w/2 Oak Leaf Clusters), Army Commendation Medal (w/Oak Leaf Cluster), Humanitarian Service Medal, NCO Development Ribbon, Combat Action Badge, Basic Parachutist Badge

LAPELS BOARD EVALUATION QUESTIONNAIRE

For *INDUSTRY* Position

(Private Practice, Government, Education, Construction, Industry)

Circle answers and include actual years for each answer

1. Responsibilities and background as an Engineer.

A. Are you currently a resident of Louisiana? Yes No

B. Are you a Louisiana licensed Professional Engineer? Yes No

If yes, month/year first licensed JAN / 1998

C. Are you currently employed as a Professional Engineer in your practice division? Yes No

If yes, give the name of your employer: Kemper Engineering Services

D. Years of experience in your practice division as a Professional Engineer? 25

E. Were your first years of experience in your current practice division? Yes No

F. Do you have, or have you had, direct supervision of engineers-in-training? Yes No

G. Years in management of Professional Engineers. 25

H. Years in management of Non-Professional Engineers. 30

I. Are you currently in responsible charge of important engineering work? Yes No

J. In which area(s) of practice (civil, mechanical, electrical, etc.) are you licensed? Mechanical

K. Highest level of education achieved: B.S. M.S. Ph.D.

L. Years involved in technical design. 31

M. Technological (research) recognition? Yes No

N. Technical recognition? Yes No

2. Support of the Profession

A. Years as a member of Louisiana Engineering Society and National Society of Professional Engineers?

31

B. Member of what Louisiana Engineering Society and National Society of Professional Engineers?

Baton Rouge Section

- C. Chairperson of what Louisiana Engineering Society, National Society of Professional Engineers, Consulting Engineers Council of Louisiana Committees? ___ LES State level: Public Relations Chair, Conference Committee Co-Chair, Publication Chair . I was also on the Mechanical Engineering committee for LAPELS to establish the standards of due care as a professional.
- D. Chapter offices held and Organization Name. ___Baton Rouge Chapter President (2001-2002), plus President elect, VP, 2nd VP, Director_____
- E. State offices held and Organization Name. ___none elected, just appointments to committees_____
- F. National offices held and Organization Name. ___Member of NSPE Committees: Emerging Technology Task Force; Software Certification Task Force; Committee on Policy and Advocacy (COPA); Committee on Emerging Technology
- G. Other Professional recognition received. ___2000: Baton Rouge LES Chapter Young Engineer of the Year; 2007: NSPE Federal Engineer of Year (Top 10); 2022: LES Hixon-Price National Professional Achievement Award; 2023: NSPE Fellow. Military awards include: Bronze Star (w/Oak Leaf Cluster), Meritorious Service Medal (w/2 Oak Leaf Clusters), Army Commendation Medal (w/Oak Leaf Cluster), Humanitarian Service Medal, NCO Development Ribbon, Combat Action Badge, Basic Parachutist Badge

3. Support of Practice in Technical Organizations (Ex: ASCE, IEEE, AIChE, etc.)

A. Technical membership and years as a member.

American Academy of Forensic Sciences (AAFS) 4
 Army Engineer Association (Life Member) 28
 American Society of Civil Engineers (ASCE) 4
 American Society of Mechanical Engineer (ASME) 34
 Institution of Engineers Australia (EA) 3
 American Society of Testing and Materials (ASTM) 5
 International Association of Fire Investigators (IAFI) 5
 Institute of Electrical and Electronics Engineers (IEEE) 2
 International Society of Explosives Engineers (ISEE) 21
 International Studies Association (ISA) 2
 Marine Technology Society (MTS) 15
 The International Association for the Engineering Modelling, Analysis and Simulation (NAFEMS) 4
 National Academy of Forensic Engineers (NAFE) 5
 National Association of Fire Investigators (NAFI) 5
 National Fire Protection Association (NFPA) 4
 Society of Automotive Engineers (SAE) 25
 Society of American Military Engineers (SAME) 12
 Society of Naval Architects and Marine Engineers (SNAME) 15

B. Member of technical organization committees.

1997-present: ASME and ASME Codes and Standards

- 2008-present: Pressure Vessels for Human Occupancy (PVHO) Committee and Subcommittees

- 2016-current, Chair, Viewports subcommittee
- 2019-present Chair, Task Force for “Design By Analysis” for glassy polymers
- 2017-current, Vice-Chair, General Requirements subcommittee
- Subcommittees: Viewports, Diving, Submarines, Medical Systems, Design & Piping, General Requirements, Post-Construction, Special Projects Task Group, Tunneling Task Group
- 2023-Present: Verification, Validation, and Uncertainty Quantification Codes & Standards, Subcommittee for Artificial Intelligence and Machine Learning (VVUQ70) (Contributing Member)
- 2022-Present: Verification, Validation, and Uncertainty Quantification Codes & Standards, Subcommittee for Solid Mechanics (VVUQ10)
- 2019-present: Charter member, Mobile Unmanned Systems (MUS) Codes & Standards
- 2009-2012: Charter member, Risk Assessment and Mitigation for Critical Asset Protection (RAMCAP)

2017-present: ASTM Codes and Standards Committees

- 2017-present: E58 Committee on Forensic Engineering
- 2022-present: E54 Committee on Homeland Security Applications

2017-present: National Academy of Forensic Engineering

- 2020-Present: Editor In Chief, Journal of the National Academy of Forensic Engineers
- 2017-Present: Peer Review for Journal of the NAFE; Ethics committee
- 2018-2020: Board Member (Director, Vice President)

2017-present: Marine Technology Society

- 2015-present: Submarines (formerly Manned Underwater Vehicle) member; Editor, technical collections

2017-present: Reviewer for Marine Technology Society Journal (Peer Reviewed Journal)

C. Chair of technical organization committees. _ASME: Chair, Pressure Vessels for Human Occupancy (PVHO)

Subcommittee on Viewports; Vice Chair, PVHO Subcommittee on General Requirements; Chair, Design by Analysis for Glassy Polymers task group. NAFE: Chair of Technical Review Committee; Editor-In-Chief of the Journal of the National Academy of Forensic Engineers

D. Chapter offices of technical organization. ___ 1997-1999 Baton Rouge, La. Section Newsletter editor

E. State offices of technical organization. ___ None_____

F. National offices of technical organization. _ NAFE: Director, VP, President Elect. I stepped down from the officer side of the NAFE when I was appointed the Editor In Chief of the Journal of the National Academy of Forensic Engineers in order to balance my time and to avoid any conflicts of interest. _____

G. Technical activity recognition. _Fellow, American Society of Mechanical Engineers (March 2022)

ASME Certificate of Acclamation for contributions for the Safety Standard PVHO-1: 2016 (October, 2016)

4. Support of Community

A. Local/State/National political subdivision elected official? Yes No
 Title: _____

B. Community service/Religious organizations? Yes No
 If yes, years as a member and organization. ___9 years active with Sacred Heart of Baton Rouge_____

- C. Community service/Religious organizations member of committee (activity)? Yes No
 _____ 7 years on Fall Fest committee for Sacred Heart _____
- D. Community service/Religious organizations chairman of committee? Yes Yes No

- E. Community service/Religious organization offices held? Yes Yes No

- F. Community service recognition received? Yes Yes No

5. General Information

A. Employment history, positions.

2006-current Kemper Engineering Services, LLC. Baton Rouge, La.

•Position: VP of Engineering, Principal Engineer

1992-2020 US Army Reserves (Corps of Engineers Officer)

• Highest Rank: Lieutenant Colonel (Retired)

• Past assignments:

LTC Engineer staff officer, Deployable Command Post, 412th Theater Engineer Command, Vicksburg, MS

LTC Design Chief, Eastern European Infrastructure Development, 301st FEST, Boulder CO

LTC Commander, 475th Engineer Detachment (Explosive Hazards Coordination Cell), Vicksburg MS

LTC Battalion Commander, 2-411th Log. Spt. Bn., 181st Infantry Brigade (1st Army Div West) Ft. McCoy, WI

LTC Officer In Charge for USACE Resident Office, Gardez AFG. Responsible for construction in 5 provinces, \$350M.

LTC Team Chief, US SOUTHCOM response team of the USACE Contingency Response Unit, Washington DC

MAJ Observer/Controller-Trainer, then O/C-T Team Chief. 1st Group, 1st Brigade, 75th Div., Houston TX

MAJ Plans Officer, 420th Engineer Brigade, Bryan Texas

MAJ Lead Engineer (FCCME), Det. 8, 412th Engineer Command supporting 130th Engineer Brigade, Balad, Iraq

CPT Mechanical Eng. (FCCME) Det. 1, 412th Engineer Command supporting SETAF, US Army Europe

CPT Mechanical Eng. (FCCME), 412th Engineer Command, Vicksburg, MS. AOR: Republic of Korea

1LT/CPT Company Commander, A/489th Engineer Battalion (Corps)(Mech), Hot Springs, Ark

2LT/1LT Acting Commander, XO, Platoon Leader, 285th Engineer Company (Combat Spt. Equipment) Baton Rouge, La

1997-2005 Kemper Imageering, Inc. Baton Rouge, La.

•Position: Vice President and Principal Engineer

Also a paid consultant for CDI Engineering, Baton Rouge, La 2000-2003.

1992-1997 KnightHawk Engineering, Inc., Baton Rouge, LA

• Position: Mechanical Engineer (EIT), later Marketing Director

1990-1992 Self-Employed/College Student, Baton Rouge, LA

• Freelance photographer for Baton Rouge Morning Advocate and State Times, Associated Press, various magazines. Freelance writer and graphic designer.

• Self-financed 100% of tuition, books, fees, plus most living expenses. Sr. Cadet, USAR.

1988-1990 U.S. Army, Fort Bragg, NC

• 82nd Airborne Division Public Affairs Office. Assistant NCO in charge, Darkroom Supervisor,

• The Paraglide. (Post newspaper, circ. 25,000.) Staff writer/photographer, Features Editor, Darkroom Supervis

B. Why do you want to serve on the LAPELS Board?

I stepped away from LES / local functions after 9-11 when my US Army Reserve duties became more intensive. I later began work in Codes & Standards, but those were fairly simple duties meeting just a few times a year. I have long held the function of the Board of Registration in high regard – it defines our duties as licensed professionals as well as provides guidance to the profession as a whole. I'm not only a PE in multiple states, but also a Registered P.E. of Queensland (Australia). This is something I've always wanted to do, but previously did not have the time for it. I will be stepping down as Editor In Chief of the Journal of the National Academy of Engineers soon and will have the time to give the Board. My military background not only includes multiple commands up to field-grade, I have also been empaneled on Retention Boards where we decide the merits of the cases of Reserve soldiers who have been charged with offenses or administrative actions that could result in being dismissed. That, plus my work as a board-certified forensic engineer as well as my work in policy development gives me respect for the consideration and due process needed to properly adjudicate the issues that come before the Board. I have made complaints to the Board and have had a complaint made against me. It is vital to take careful, deliberate action in reviewing complaints and assessing any appropriate action as well as making recommendations to the State government regarding policy and regulations. I would also be able to help evaluate military candidates for suitability for licensure, as I've worked with all the services in my career except Space Force.

C. What do you consider the most important function of the LAPELS Board?

From the outside looking in, the enforcement of the licensure law for P.E.s is the most important. On one hand, you have a person's ability to make a living in a field they had to prove themselves to get to their license. On the other hand, you have the rules and regulations that all licensed professionals must adhere to, legally and ethically. In between, there is a range of communication challenges, misunderstandings, possibility for some level of malice in reporting, and all the things that need to be filtered and weighed to give humanity and justice a role in the process.

D. Is there anything that you would like to accomplish while serving on the LAPELS Board?

I do not have an agenda such as a policy change. If there is a crisis within the profession, such as the issues regarding CPDs in the early 1990s and the need to craft new regulation and policy, I will rise to that occasion. My main goal is to have a fair, methodical approach to enforcement of the professional laws and regulations and to support our role within society, to include defense of licensure and its role in safeguarding the health, welfare, and safety of the public.

E. Are there any issues affecting engineering and/or surveying that you feel need to be addressed by the Board?

Hold the line against the political movement to reduce or abolish registration.

6. List the names, complete addresses and telephone numbers of three people who will serve as professional or character references. Two references must be registered Professional Engineers.

1. Name: Alan Krouse, P.E.
Address: 17425 Jefferson Hwy
City,State,Zip: Baton Rouge, LA 70817
Email: akrouse@deii.net
Cell/Home Phone: 225.936.9946
Business Phone: 504.468.6129

2. Name: Steve Pietropaolo, P.E.
Address: 7 Reservoir Road
City,State,Zip: North White Plains, NY 10603
Email: steve@lgiforensic.com
Cell/Home Phone: 914.670.0208
Business Phone: 914.670.0208

3. Name: Mitchell J. Maifeld, P.E.
Address: 6011 Green Meadows Lane
City,State,Zip: Katy, TX 77493
Email: mitch@zenzic.biz
Cell/Home Phone: 855- 936-9427
Business Phone: 855- 936-9427

7. CERTIFICATION BY NOMINEE

Persons seeking nomination as a Louisiana Professional Engineering and Land Surveying Board (LAPELS) representative are expected to practice professionally in their area of practice and in their personal, political, and community life. This specifically includes **not** using any elected officials, or friends of elected officials, or friends that are part of the nomination committee, to influence selection by the nominating committee or by the Governor of Louisiana.

By my signature below, I agree to abide by the language above.

 15 OCT 2023
Signature Date

Clarence B. "Bart" Kemper, P.E.
Print Name

306 Bedford Drive
Address

Baton Rouge, LA 70806
City, State, & Zip Code

225-923-2945 225-324-8353
Phone Number Cell Number

bkemper@kempereng.com
E-mail

ADDITIONAL CERTIFICATION FOR RETIRED NOMINEES

Even though I am retired from a former _____ Practice position, I certify that I am engaged in the practice of engineering in one of the five functional areas of practice listed in LA R.S. 37:683(a) (education, government, industry, private practice, or construction). I further certify that I continue to be active in the _____ practice division of LES, and I currently have, and will maintain, an active PE license for the duration of my LAPELS service.

Signature Date



ALEX LAWLER, P.E.

DRILLING/COMPLETIONS ENGINEER

PROFILE

Licensed Petroleum Engineer with over 17 years of experience in the oil & gas industry. Spent 5 years rotating on rigs in the deepwater Gulf of Mexico and overseas before moving into an office-based role. Since joining LLOG in '14, planned & executed several well operations including subsea completions, interventions, and P&A's. On the board for the SPE Subsea Well Intv Symposium ('19 Co-Chair) and '21 President of AAE New Orleans Chapter.

CONTACT

alex.lawler@gmail.com

504.460.3561

Mandeville, LA, USA

<https://www.linkedin.com/in/alex-lawler-p-e-23230b2/>

REFERENCE

Barney Paternostro
VP Completions – LLOG
barneyp@llog.com

EXPERIENCE

LLOG EXPLORATION

JUN. 2014-PRESENT

- LLOG has unique structure in which engineer is responsible for well design, execution (supt.), & vendor coordination (supply chain).
- Responsible for over 25 well operations incl. completions (intelligent completions; horizontal & vertical trees), interventions (acid stim.'s), and P&A's.
- Led several company milestones incl. 1st 5-1/2" subsea completion, 1st 13-5/8" completion, 1st magnetic SCSSV, and 1st recovery of 20"x36" strings in 1 run.
- Executed on of the world's only quadruple zone 7-3/4" Wilcox completions at 20ksi BHP & 28,000' depth.

CHEVRON NORTH AMERICA

MAR. 2012-MAY 2014

- Front-end D&C planning for long-term Tahiti development.
- NOJV rep. on Anadarko's Caesar Tonga field.

ENI PETROLEUM

JAN. 2008-FEB. 2012

- 1 year 28/28 rotation as Night Co Man in Med. Sea.
- 3 years 14/14 rotation as Night Co Man / Field Engineer in subsea deepwater Gulf of Mexico.

DOMINION E&P

JUN. 2006-JUL. 2007

- Hired as Assoc. Drilling Engineer after completing summer internship.

EDUCATION

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

TULANE UNIVERISTY – NEW ORLEANS, LA, USA – MAY 2006

RECEIVED ACADEMIC SCHOLARSHIP

SPENT FALL 2005 AT TEXAS A&M UNIVERSITY DUE TO H. KATRINA

TRAINING / CERTIFICATIONS

- Prof. Engr License in Petro. Engr – LA #38586
- Completed IADC & IWCF Well Control Classes
- Served as LLOG rep. for various industry groups/subgroups incl. OOC, API, & HWCG

LAPELS BOARD EVALUATION QUESTIONNAIRE

For *INDUSTRY* Position

(Private Practice, Government, Education, Construction, Industry)

Circle answers and include actual years for each answer

1. Responsibilities and background as an Engineer.

A. Are you currently a resident of Louisiana? Yes No

B. Are you a Louisiana licensed Professional Engineer? Yes No

If yes, month/year first licensed Dec / 2013

C. Are you currently employed as a Professional Engineer in your practice division? Yes No

If yes, give the name of your employer: _____

D. Years of experience in your practice division as a Professional Engineer? 10

E. Were your first years of experience in your current practice division? Yes No

F. Do you have, or have you had, direct supervision of engineers-in-training? Yes No

G. Years in management of Professional Engineers. 0 * oil & gas is a bit unique; I supervise PE-licensed contractors that provide an independent third-party verification of technical work

H. Years in management of Non-Professional Engineers. 17

I. Are you currently in responsible charge of important engineering work? Yes No

J. In which area(s) of practice (civil, mechanical, electrical, etc.) are you licensed? Petroleum

K. Highest level of education achieved: B.S. M.S. Ph.D.

L. Years involved in technical design. 15

M. Technological (research) recognition? Yes No

N. Technical recognition? Yes No

* Responsible for several technological "firsts" at my company

2. Support of the Profession

A. Years as a member of Louisiana Engineering Society and National Society of Professional Engineers?

10

B. Member of what Louisiana Engineering Society and National Society of Professional Engineers?

New Orleans

C. Chairperson of what Louisiana Engineering Society, National Society of Professional Engineers, Consulting Engineers Council of Louisiana Committees? N/A; however, heavily involved in other oil & gas industry organizations, including leadership positions

D. Chapter offices held and Organization Name.

N/A

E. State offices held and Organization Name.

N/A

F. National offices held and Organization Name.

N/A

G. Other Professional recognition received.

N/A

3. Support of Practice in Technical Organizations (Ex: ASCE, IEEE, AIChE, etc.)

A. Technical membership and years as a member. Member of American Association of Drilling Engineers and Society of Petroleum Engineers, each for 17 years.

B. Member of technical organization committees. Member of AADE New Orleans Chapter Steering Committee, former member of Technical Forum committee; Board Member for SPE Subsea Well Intervention Symposium since 2018

C. Chair of technical organization committees. 2021 President of AADE New Orleans Chapter; Co-Chairman of 2019 SPE Subsea Well Intervention Symposium

D. Chapter offices of technical organization. AADE New Orleans Chapter

E. State offices of technical organization. N/A

F. National offices of technical organization. N/A

G. Technical activity recognition. N/A

4. Support of Community

A. Local/State/National political subdivision elected official?
Title: _____

Yes No

B. Community service/Religious organizations?
If yes, years as a member and organization. Our Lady of the Lake Parish in Mandeville, LA

Yes No

C. Community service/Religious organizations member of committee (activity)?

Yes No

- D. Community service/Religious organizations chairman of committee? Yes No
-
- E. Community service/Religious organization offices held? Yes No
-
- F. Community service recognition received? Yes No
-

5. General Information

A. Employment history, positions.

- LLOG Exploration. Deepwater Drilling/Completions Engineer. Jun. '14 – Present.
- Chevron. Deepwater Drilling/Completions Engineer. Mar. '12 – May '14.
- Eni. Drilling Engineer. Jul. '07 – Feb. '12.
- Dominion. Associate Engineer. May '05 – Jun. '07.

B. Why do you want to serve on the LAPELS Board?

After having served as an engineer for 17 years, 9 of those as a PE, I feel I have gained sufficient experience to help steward the engineering profession in Louisiana. I have enough experience to advise on critical issues when prudent, yet am not far removed from attaining my license to have forgotten the details of that process.

C. What do you consider the most important function of the LAPELS Board?

Plainly said - integrity. The citizens of LA trust the LAPELS Board to ensure a high-degree of competency and character is held by those that attain the status of Professional Engineer. Board members are caretakers of this mission, whether that be through discipline, rule modifications, or community outreach.

D. Is there anything that you would like to accomplish while serving on the LAPELS Board?

I would continue to advocate and support STEM programs throughout the state. I would like to see a tangible increase in STEM programs at the high school level, and an increase in enrollment in STEM degrees at the university level.

E. Are there any issues affecting engineering and/or surveying that you feel need to be addressed by the Board?

Though a minor issue, the changes in how PDH's are earned should be highlighted to PE's renewing in '23. I'd also like to know how many engr graduates get their license.

6. List the names, complete addresses and telephone numbers of three people who will serve as professional or character references. Two references must be registered Professional Engineers.

1. Name: Adam Currier, P.E.
Address: 1001 Ochsner Blvd, Ste 100
City,State,Zip: Covington, LA 70433
Email: adam.currier@llog.com
Cell/Home Phone: 713.253.5524
Business Phone: 985.801.4336

2. Name: Erik Hoffpauir, P.E.
Address: 1001 Ochsner Blvd, Ste 100
City,State,Zip: Covington, LA 70433
Email: erikh@llog.com
Cell/Home Phone: 225.788.3569
Business Phone: 985.801.4746

3. Name: Barney Paternostro
Address: 1001 Ochsner Blvd, Ste 100
City,State,Zip: Covington, LA 70433
Email: barneyp@llog.com
Cell/Home Phone: 985.789.1175
Business Phone: 985.801.4340

