PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

Item #17 (Rev. 1) Agenda ID #23476 RESOLUTION E-5399 June 12, 2025

<u>R E S O L U T I O N</u>

Resolution E-5399. Confirmation of candidates for appointment to the Diablo Canyon Independent Safety Committee (DCISC) for a three-year term beginning July 1, 2025.

PROPOSED OUTCOME:

• The California Public Utilities Commission (CPUC) ratifies the CPUC President's selection of candidates for consideration by the California Attorney General for appointment to the DCISC.

SAFETY CONSIDERATIONS:

• The DCISC reviews operations at Pacific Gas and Electric Company's (PG&E) Diablo Canyon Power Plant (DCPP) for the purpose of assessing the safety of current operations and suggesting recommendations for continued safe operations. The appointed candidate will serve a three-year term on the DCISC.

ESTIMATED COST:

• All ongoing DCISC costs were funded previously. Ratification of the CPUC President's selection of candidates for appointment to the DCISC will not result in any additional costs.

As required by D.23-08-004, dated August 10, 2023.

SUMMARY

The Diablo Canyon Independent Safety Committee (DCISC) consists of three members, each appointed in turn by the California Governor, the California Attorney General (AG), and the Chair of the California Energy Commission, serving staggered three-year

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terms. Section 1.B of the Third Restated Charter for the DCISC describes the process for appointment of DCISC members: it requires the California Public Utilities Commission (CPUC or Commission) to select and forward to the appointing authority no more than three new candidates plus the incumbent for DCISC membership. The appointing authority for the current cycle is the Attorney General. This Resolution ratifies the CPUC President's selection of Dr. Robert Budnitz (incumbent), Dr. Michael D. Quinn, and Dr. Raluca Scarlat as candidates for appointment to the DCISC, for a three-year term commencing on July 1, 2025.

BACKGROUND

Establishment of the DCISC and Member Selection Process:

The CPUC created the DCISC in Decision (D.) 88-12-083 as part of the overall settlement of ratemaking issues for the Diablo Canyon Power Plant (DCPP), which is owned and operated by Pacific Gas and Electric Company (PG&E). Senate Bill (SB) 846, signed into law by Governor Newsom on September 2, 2022, primarily requires the CPUC to consider the potential extension of operations at the DCPP, but also calls for the DCISC to continue operations through such time as all spent nuclear fuel has been moved to dry storage at the DCPP Independent Spent Fuel Storage Installation, and that the DCISC continue to make findings and recommendations appropriate to enhance the safety of the operation of the DCPP.¹

The DCISC is an independent, three-member committee responsible for monitoring the safety of PG&E's operation of DCPP. The DCISC conducts site visits at the DCPP, holds public meetings, and issues an annual report summarizing its activities and reviews of DCPP operations and provides findings and recommendations regarding DCPP operational safety. The DCISC's budget for 2025-2026 is primarily paid out of the SB 846 Non-Bypassable Charge by ratepayers from all Load Serving Entities.² D.88-12-083 established the qualifications and procedures for appointment of members to the DCISC and defined the scope of the Committee's operations and responsibilities.³

¹ Pub. Util. Code Section 712.1.

² PG&E Advice Letter 6870-E/6870-E-A as approved by Resolution E-5299; Pub. Util. Code Section 712.8(l)(1).

³ D.88-12-083, Appendix C, Attachment A; See also Pub. Util. Code Sections 712.1(c) and (e).

Membership on the DCISC is a compensated position.⁴

On October 24, 2006, the DCISC submitted Application (A.) 06-10-024 proposing a restated charter. The CPUC adopted the Restated Charter in D.07-01-028 on January 25, 2007. Submission of a Second Restated Charter was authorized in Ordering Paragraph 3 of D.21-09-003 on September 9, 2021, and approved in Advice Letter 6361-E on December 9, 2021. Submission of the Third Restated Charter was authorized in Ordering Paragraph 4 of D.23-08-004 on August 10, 2023, and approved in Advice Letter 7034-E on September 25, 2023.⁵

Section 1.B of the Third Restated Charter describes the process for appointment of DCISC members. It requires the CPUC to select no more than three candidates for DCISC membership from among those applicants responding to an open request by the CPUC for applications. The incumbent member whose term is about to expire is to be deemed an additional candidate if they consent. The CPUC is charged with the responsibility to provide for public comment on the applicants' qualifications and potential conflicts of interest. The President of the CPUC is to review the applicants' qualifications, experience, and background, including any conflicts of interest,⁶ together with any public comments, and propose as candidates to the appointing authority only persons with knowledge, background, and experience in the field of nuclear power plants and nuclear safety issues. The Energy Division prepares a draft resolution ratifying the CPUC President's selection of candidates for the Commission.

⁴ In Resolution E-3152, the Commission established that DCISC member compensation be set at levels commensurate with fees paid by PG&E for comparable services.

The compensation levels set in E-3152 have since been revised several times, most recently in D.23-08-004. The current compensation levels were affirmed on April 1, 2025, in PG&E Advice Letter (AL) 7553-E as follows: annual retainer of \$10,800; \$270/hour fee for attendance at DCISC meetings; \$270/hour fee for DCISC work performed outside of committee meetings in excess of 40 hours/year; and reimbursement of expenses incurred in performance of DCISC work.

⁵ The approval of Advice Letter 7034-E and the text of the Third Restatement of the Charter for the Diablo Canyon Independent Safety Committee (in Attachment 2) are available at: <u>https://www.pge.com/tariffs/assets/pdf/adviceletter/ELEC_7034-E.pdf</u>.

⁶ As conflicts of interest are a legal question, their review was conducted by the CPUC's legal department which the President then approved.

Current Applicants:

On January 14, 2025, an open request for applications to fill the July 1, 2025, vacancy on the DCISC was posted on the CPUC's website.⁷ Applications were timely received from Dr. Michael Quinn and Dr. Raluca Scarlat. In addition, Dr. Robert Budnitz, the incumbent member of the DCISC whose term is set to expire, sent a letter to the Energy Division confirming his willingness to continue serving as a member of the DCISC.

Dr. Budnitz provided a synopsis of his technical experience and professional activities relating to nuclear reactor and radioactive waste safety, including his experience as a researcher and consultant both independently and with various federal entities. Dr. Budnitz was originally appointed to the DCISC on October 10, 2007, by then Attorney General Edmund "Jerry" G. Brown, Jr.⁸ Dr. Budnitz's sixth term on the DCISC is set to expire on June 30, 2025.

In Dr. Quinn's application, he describes his experience working in the nuclear power industry, and consulting on nuclear operations and safety for industry clients as well as the U.S. and Canadian governments. Dr. Quinn was previously selected by the Commission as one of the qualified candidates considered for appointment.⁹

The application of Dr. Scarlat details her expertise in chemistry and materials for nuclear fusion and fission energy, advanced nuclear reactors, safety analysis, and engineering ethics as a Professor in the University of California (UC) Berkeley Nuclear Engineering Department. Dr. Scarlat also serves on the Nuclear Energy Advisory Committee for the Department of Energy as well as the Nuclear Safety Committee and Advisory Committee for the UC Davis McClellan Nuclear Research Reactors. Dr. Scarlat was previously selected by the Commission as one of the qualified candidates considered for appointment.¹⁰

⁷ A link to the announcement posted on the CPUC's website was sent to the service lists of A.21-12-007, R.23-01-007, and A.24-03-018 to ensure that parties interested in issues relating to the DCPP were aware of the announcement. A.21-12-007 is PG&E's 2021 Nuclear Decommissioning Cost Triennial Proceeding; R.23-01-007 is the Rulemaking implementing SB 846; A.24-03-018 is PG&E's 2025 DCPP Extended Operations Forecast.

⁸ See CPUC Resolution E-5213 (June 2, 2022).

⁹ See CPUC Resolution E-5329 (June 20, 2024).

¹⁰ See CPUC Resolution E-5329 (June 20, 2024).

Public Comments on Applicants:

On February 24, 2025, an announcement was posted on the CPUC's website inviting comments on the candidates.¹¹ Summaries of their qualifications were included with the announcement. All public comments received for the candidates are included in their entirety in Appendix B of this Resolution. In the paragraphs below, where a commenter submitted comments as the representative of an organization or group, that organization or group is identified in parentheses.

Comments in support of Dr. Budnitz' reappointment were submitted by Gene Nelson (Californians for Green Nuclear Power) and Ferman Wardell; comments against Dr. Budnitz' reappointment were submitted by Julie Mansfield-Wells and Linda Parks. The supporting comments emphasize Dr. Budnitz' extensive experience serving on the DCISC, his expertise in seismology and probabilistic risk analysis, and his public outreach work. The comments against his reappointment focus on his behavior at the October 2024 DCISC meeting and the appearance of a lack of objectivity.

Comments in support of Dr. Quinn's appointment were submitted by Michael Coyle, Steven Crowe, Michael Fecht, Julie Mansfield-Wells, Jean Merrigan (Women's Energy Matters), Matthew Sunseri, Richard Swanson (Performance Management Initiatives), David Weisman (Alliance for Nuclear Responsibility), and Jill ZamEk (Mothers for Peace). The supporting comments highlight Dr. Quinn's breadth of experience including his work in plant operations, nuclear safety, and decommissioning, and with the Nuclear Regulatory Commission (NRC); his integrity; and his independence.

Comments in support of Dr. Scarlat's appointment were submitted by Todd Allen, Merwan Benhabib, Karl van Bibber, Ingrid Bran, Jacopo Buongiorno, Ben Busse, Michael Corradini, Ron Gester, Jenna Goodward, Arnaud Grunwald, Jess Gehin, Kathryn Huff, Andrea Kritcher, Marc Olivier Le Blanc, Gert Lanckriet, Digby Macdonald, Marisa Monreal, Monica Regalbuto, Anne-Marie Riitsaar, James Rushton, Aishwarya Saxena, Alex Scialom, Michael Short, Jason Swierk, and Jean Toilliez. The supporting comments emphasize her unique experience working at the intersection of nuclear technology and safety, her background in material degradation which is an active issue for Diablo Canyon, her ability to think across disciplines and sectors, and her judgment.

¹¹ A link to the announcement was also sent to the service lists of A.21-12-007, R.23-01-007, and A.24-03-018. *See* footnote 7 above.

NOTICE

Notice of this Resolution was made by publication in the CPUC's Daily Calendar. A copy of the Draft Resolution was sent to all of the applicants and to those submitting comments on their behalf. A copy of the Draft Resolution was also sent to the Attorney General and to the service lists of PG&E's 2021 Nuclear Decommissioning Cost Triennial proceeding (A.21-12-007), A.24-03-018, and R.23-01-007, the Commission's Rulemaking implementing SB 846.

DISCUSSION

The third restated charter adopted in D.23-08-004 and Advice Letter 7034-E requires that candidates for appointment to the DCISC be persons with knowledge, background, and experience in the field of nuclear power facilities and nuclear safety issues who demonstrate they have no conflicts of interest.¹² The discussion below details CPUC President Alice Reynolds' determinations as to the qualifications of each candidate.

Summaries of the qualifications of each applicant are included in Appendix A of this Resolution.

Dr. Robert J. Budnitz is qualified to continue to serve on the Diablo Canyon Independent Safety Committee.

Dr. Budnitz is an incumbent member of the DCISC, having been appointed to his initial three-year term from July 2007 through June 2010 by then-Attorney General, Jerry Brown, who reappointed Dr. Budnitz for a second term from July 2010 through June 2013. Dr. Budnitz applied for reappointment to the DCISC in 2013. Even though the Attorney General did not make an appointment in 2013 to fill the vacancy on the Committee, Dr. Budnitz, in accordance with DCISC and CPUC rules, continued to serve on the Committee. He was reappointed to a fourth term by then-Attorney General Kamala Harris in June 2016, to a fifth term by then-Attorney General Xavier Becerra in June 2019, and to a sixth term by Attorney General Rob Bonta in June 2022. In addition

¹² Conflicts of interest guidelines are set forth in Section I.C of the second restated charter. They establish limits for DCISC members on income and gifts from PG&E or an affiliated company, and investments in PG&E or an affiliate. They also prohibit members of the DCISC from attempting to use their position to influence an action of the Committee about which they have a financial interest. DCISC members are required to file a Statement of Economic Interest in the same manner as designated CPUC employees. No person shall serve on the DCISC who has a prior history of supporting or opposing PG&E as a witness or intervenor in nuclear licensing or CPUC proceedings associated with the DCPP.

to serving on the DCISC, Dr. Budnitz still works as a consultant, advising on reactor safety both domestically and internationally. Previously, Dr. Budnitz worked on the scientific staff at Lawrence Berkeley National Laboratory (LBNL) where he researched the seismic safety of nuclear reactors. Prior to his time at LBNL, Dr. Budnitz spent more than 20 years as president of Future Resources Associates, Inc., a private consulting company he founded which specialized in reactor safety, radioactive waste, and related subjects. This was followed by employment with Lawrence Livermore National Laboratory, which included two years with the Department of Energy's Office of Civilian Radioactive Waste Management. Dr. Budnitz began his career at LBNL in 1967, where he eventually rose to the positions of Associate Director and Head of the Energy and Environment Division, followed by two years as a senior officer at the NRC, during which time he served as the technical coordinator for the NRC's inquiry into the 1979 accident at Three Mile Island. Dr. Budnitz earned a Ph.D. in physics from Harvard University in 1968.

Dr. Budnitz has no conflicts of interest that would preclude his continuing to serve on the DCISC.¹³ His qualifications show that he has the requisite knowledge, background, and experience in the field of nuclear power plants and nuclear safety issues.

Dr. Michael Quinn is qualified to serve on the Diablo Canyon Independent Safety Committee.

Dr. Quinn has been continuously engaged in the nuclear industry for over 45 years: currently, he leads evaluations on nuclear operations reliability and conduct of operations, and since 2006 teaches U.S. NRC inspectors and technical staff on evaluating elements of nuclear licensee performance and safety culture. Since 1999 he has engaged as an operations evaluator and consultant to the U.S., Canadian commercial nuclear power industry, and the U.S. Department of Energy (DOE), evaluating significant nuclear events, regulatory compliance, program rigor, and facilitating performance improvement; during the 24 years prior he held director-level positions in the power block of a nuclear unit within a large nuclear utility. His experience includes developing and delivering root cause evaluation training to NRC staff; leading significant issue evaluations at four ISFSI sites; refueling operations events at five nuclear plant sites; Dr. Quinn has also led teams that developed and implemented corrective actions to address significant operational events at over 30 nuclear facilities/units – including the nuclear fuel melt at the National Institute of Standards

¹³ By email to Energy Division staff dated January 14, 2025, Dr. Budnitz confirmed that he has no conflicts of interest as set forth in Section I.C. of the second restated charter.

and Technology – and has performed evaluations for three regulators in the U.S. and Canada. He has led teams in evaluating, developing, and implementing programs to establish a safety culture at commercial nuclear power facilities and the U.S. DOE. Dr. Quinn has experience facilitating the transition of nuclear plant staffs to permanent shutdown: focusing on operational compliance and reliability, staff retention, addressing concerns, and facilitating a healthy nuclear safety culture and safety conscious work environment. Dr. Quinn has taught nuclear safety event causal analysis to the U.S. NRC, Canadian Nuclear Safety Commission, and the Japan Nuclear Regulation Authority. Dr. Quinn earned a Doctorate of Science in Organizational Management Systems and an Executive Master of Business Administration degree, both from the University of New Haven, and a B.S. in Chemistry from Charter Oak College. He previously held a U.S. NRC Senior Reactor Operator License on a Westinghouse pressurized water reactor, and is a Certified Root Cause Investigator and Radiation Safety Officer.

Dr. Quinn has no conflicts of interest that would preclude his serving on the DCISC. His qualifications show that he has knowledge, background, and experience in the field of nuclear power plants and nuclear safety issues.

Dr. Raluca Scarlat is qualified to serve on the Diablo Canyon Independent Safety Committee.

Dr. Scarlat is a Professor of Nuclear Engineering at UC Berkeley, in the field of chemistry, materials, and reactor safety. In addition to teaching courses in those fields, she serves as the head undergraduate curriculum advisor for the Department of Nuclear Engineering. Her research at UC Berkeley encompasses chemistry and materials for nuclear fusion and fission energy as well as other clean energy applications, plus she built the SALT research group which conducts high temperature experimental studies for molten salts and high temperature materials, particularly beryllium and radioactive materials. Dr. Scarlat previously taught thermal hydraulics and nuclear reactor safety at the University of Wisconsin, Madison. Additionally, Dr. Scarlat has expertise in electrochemistry and physical chemistry, corrosion, tritium management, advanced nuclear reactors, reactor safety and thermal-hydraulics, and engineering ethics. In 2009, Dr. Scarlat was awarded an Excellence Award in Nuclear Energy Fuel Cycle Research and Development from the DOE and a three-year fellowship at the DOE. In 2021, she was awarded the American Nuclear Society Mary Jane Oestmann Professional Women's Achievement Award. Dr. Scarlat has previously conducted research on accident progression at the Fukushima Dai-Ichi plant to make recommendations for improving severe accident management at boiling water reactors in Japan; and she also researched advanced reactor licensing. She has served as a member of the working group for the Development of ANS 20.2 Standard, Nuclear Safety Design Criteria and Functional Performance Requirements for Liquid-Fuel Molten Salt Reactor Nuclear Power Plants, and on the American Society of Mechanical Engineers standards task group on graphite issues for Molten Salt Reactors. Dr. Scarlat currently serves on the Nuclear Safety Committee and the Advisory Committee for UC Davis' McClellan Nuclear Research Reactors in Sacramento. She recently served two terms on the Nuclear Energy Advisory Committee for the DOE's Office of Nuclear Energy. Dr. Scarlat has a Ph.D. in Nuclear Engineering with designated emphasis in Energy, Science, and Technology, an M.S. in Nuclear Engineering, both from UC Berkeley, as well as a Certificate in Management of Technology from Berkeley's Haas School of Business. She also has a B.S. in chemical and biomolecular engineering from Cornell University.

Dr. Scarlat has no conflicts of interest that would preclude her serving on the DCISC. Her qualifications show that she has knowledge, background, and experience in the field of nuclear power plants and nuclear safety issues.

As required by D.23-08-004 and Advice Letter 7034-E, President Reynolds has reviewed the qualifications, experience, and backgrounds of Dr. Budnitz, Dr. Quinn, and Dr. Scarlat and, finding them qualified to serve on the DCISC, chooses to provide their names to the California Attorney General as candidates for appointment to the DCISC for the three-year term beginning July 1, 2025.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this Resolution must be served on all parties and subject to at least 30 days public review. Any comments are due within 20 days of the date of its mailing and publication on the Commission's website and in accordance with any instructions accompanying the notice. Section 311(g)(2) provides that this 30-day review period and 20-day comment period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day review and 20-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments on May 7, 2025, and will bewas placed on the Commission's agenda. As no earlier than 30 days from today comments were submitted, no substantive changes were made to this Resolution.

FINDINGS AND CONCLUSIONS

- 1. Decision (D.) 88-12-083 created the Diablo Canyon Independent Safety Committee (DCISC).
- 2. Senate Bill (SB) 846 continued the DCISC requiring that the DCISC continue operations through such time as all spent nuclear fuel has been moved to dry storage at the DCPP Independent Spent Fuel Storage Installation and that it continues to make findings and recommendations appropriate to enhance the safety of the operation of the DCPP.
- 3. The DCISC is an independent, three-member committee responsible for monitoring the safety of PG&E's operation of the Diablo Canyon Power Plant.
- 4. D.07-01-028 adopted a restated charter for the DCISC including revised procedures for appointments of DCISC members.
- 5. D.21-09-003 ordered the submission of a second restated charter in an advice letter. The second restated charter for the DCISC was submitted in Advice Letter 6361-E and approved on December 9, 2021.
- 6. D.23-08-004 ordered the submission of a third restated charter in an advice letter. The third restated charter for the DCISC was submitted in Advice Letter 7034-E and approved on September 25, 2023.
- 7. On January 14, 2025, in accordance with D.23-08-004 and Advice Letter 7034-E, an announcement was posted on the CPUC's website seeking applications for the July 1, 2025, vacancy on the DCISC.
- 8. The California Attorney General is the appointing authority for the July 1, 2025, vacancy on the DCISC.
- 9. Dr. Robert Budnitz, the incumbent member of the DCISC whose term expires on June 30, 2025, responded to the CPUC's January 14, 2025, announcement and consents to being a candidate for reappointment to the DCISC.
- 10. Dr. Michael Quinn, a professional nuclear energy consultant, responded to the CPUC's January 14, 2025, announcement, and submitted an application to be considered as a candidate for appointment to the DCISC.
- 11. Dr. Raluca Scarlat, a Professor of Nuclear Engineering, responded to the CPUC's January 14, 2025, announcement, and submitted an application to be considered as a candidate for appointment to the DCISC.
- 12. The CPUC invited comments on Dr. Budnitz', Dr. Quinn's, and Dr. Scarlat's qualifications in an announcement posted on the CPUC's website on February 24, 2025.
- 13. Comments supporting the appointment of Dr. Budnitz, Dr. Quinn, and Dr. Scarlat to the DCISC were received in response to the CPUC's February 24, 2025, announcement inviting comments.

- 14. The CPUC's President, Alice Reynolds, has reviewed the qualifications, experience, and backgrounds of Dr. Budnitz, Dr. Quinn, and Dr. Scarlat.
- 15. Dr. Budnitz, Dr. Quinn, and Dr. Scarlat have knowledge, background, and experience in the field of nuclear power plants and nuclear safety issues, and are qualified candidates for appointment to the DCISC.
- 16. President Alice Reynolds has chosen to provide the names of Dr. Budnitz, Dr. Quinn, and Dr. Scarlat as candidates for appointment to the DCISC for a three-year term beginning July 1, 2025.
- 17. President Alice Reynolds' selection of Dr. Budnitz, Dr. Quinn, and Dr. Scarlat as the candidates for appointment to the DCISC for a three-year term beginning July 1, 2025, should be ratified and provided to the Attorney General.

THEREFORE IT IS ORDERED THAT:

1. President Alice Reynolds' selection of Dr. Budnitz, Dr. Quinn, and Dr. Scarlat as qualified candidates for consideration by the California Attorney General for appointment to the Diablo Canyon Independent Safety Committee for a three-year term beginning July 1, 2025, is hereby ratified.

This Resolution is effective today.

Commissioner Signature blocks to be added upon adoption of the resolution

The foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on June 12, 2025; the following Commissioners voting favorably thereon:

Commissioner Signature blocks to be added upon adoption of the resolution

Dated _____, at <Voting meeting location>, California

APPENDIX A

APPENDIX A

The following statements were supplied by the applicants as part of the application process and were available for public review and comment starting on February 24, 2025. The assertions of fact contained within these statements have not been disputed. These statements are provided verbatim.

Dr. Robert J. Budnitz (Incumbent)

Dr. Robert J. Budnitz is currently an incumbent member of the Diablo Canyon Independent Safety Committee (DCISC), serving a term that began July 1, 2022, and will end June 30, 2025, as appointed by Attorney General Rob Bonta. Dr. Budnitz was originally appointed to the DCISC by then Attorney General Edmund G. Brown Jr. in 2007 for a term that ran through mid-2010.

In addition to his role on the DCISC, Dr. Budnitz retired in 2017 from the scientific staff at the University of California's Lawrence Berkeley National Laboratory (LBNL), where he worked on nuclear power safety and security. He currently works as a consultant, advising on reactor safety both domestically and internationally. He is a member of the National Academy of Engineering. He has also been honored by being named a Fellow of the American Nuclear Society, the American Physical Society, the Society for Risk Analysis, and the American Association for the Advancement of Science. His current research is largely in the area of the seismic safety of nuclear reactors, most of which is supported by the U.S. Nuclear Regulatory Commission (NRC). From 2002 to 2007, he was employed at UC's Lawrence Livermore National Laboratory; during part of that period he also worked on a two-year special assignment in Washington D.C. assisting the Director of DOE's Office of Civilian Radioactive Waste Management to develop a new Science & Technology Program for the Yucca Mountain Project. Dr. Budnitz additionally serves on advisory and standards-development committees for organizations such as the American Nuclear Society and the American Society of Mechanical Engineers.

From 1967 to 1978, Dr. Budnitz was on the staff of the Lawrence Berkeley National Laboratory, serving in 1975-1978 as Associate Director and Head of LBNL's Energy & Environment Division. The programs under his direction included energy-efficiency, deep-geologic radioactive waste disposal, solar energy, geothermal energy, fusion energy, transportation technology, chemical-engineering for alternate fuels, environmental instrumentation, airpollution phenomena, and energy policy analysis.

From 1978 to 1980, he was a senior officer on the staff of the NRC. In 1978-1979, he was the Deputy Director, NRC Office of Nuclear Regulatory Research, and in 1979-1980 he became the Director of that same Office. In that position, Dr. Budnitz was responsible for formulating and guiding the large NRC research program that constituted over \$200 million/year at the time. His responsibilities included assuring that all major areas of reactor-safety research, waste-management research, and fuel-cycle-safety research necessary to serve the mission of the NRC were adequately supported. Additionally, following the Three Mile Island reactor accident, Dr. Budnitz served the last 7 months of 1979 as the "technical coordinator" of the important NRC internal inquiry examining the accident, known as the "Special Inquiry Group."

After leaving the NRC in 1980 and until late 2002, Dr. Budnitz worked as a private consultant on reactor safety, radioactive waste, and related subjects, as president of Future Resources

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Associates, Inc., a small firm he founded in Berkeley in 1981. His clients included both industrial and governmental organizations. A majority of his research support in the post-1981 period came from governmental sources, including NRC, DOE, and the U.S. Environmental Protection Agency, as well as international and intergovernmental organizations such as the International Atomic Energy Agency in Vienna, the OECD Nuclear Energy Agency in Paris, and the European Bank for Reconstruction and Development in London. After the downfall of the Soviet Union in 1991, an international program was assembled by several western nations to assist the operators of Soviet-designed reactors in Russia and several other countries to evaluate and then to upgrade their safety. Dr. Budnitz played a leading role in that multi-national effort for about 15 years. One of those projects, advising the government of Armenia on the safety of their old Soviet-designed reactor, remains an active project for Dr. Budnitz today, nearly 30 years later.

After the serious Japanese reactor accident at Fukushima in March 2011, caused by an earthquake-triggered tsunami that flooded the site and damaged 4 of the 6 reactors on-site, the U.S. Secretary of Energy and President Obama's Science Adviser appointed a special "science panel" to advise them about the best way early-on to interpret the incomplete technical information that was available from Japan, and about how best the U.S. might assist the Japanese in responding. Dr. Budnitz served on that high-level panel for the duration of 2011.

Some of Dr. Budnitz's other assignments include serving as chairman of an OECD/NEA International Specialist Meeting that evaluated the adequacy of our current understanding of possible terrorist attacks on nuclear facilities, a few months after the terrorist attacks on New York and Washington on 9/11/2001; he chaired the "Senior Seismic Hazards Analysis Committee" (the "SSHAC committee") supported by DOE, NRC, and the Electric Power Research Institute, that developed an advanced probabilistic seismic hazard methodology, published in 1997, which has now become the commonly accepted way to do this type of hazard analysis and was used recently in the most advanced studies of the seismic hazards at the Diablo Canyon site; he chaired both the NRC's "Expert Panel on Seismic Margins" that developed the widely-used seismic-margin methodology for assessing the seismic capabilities of existing nuclear facilities, and the DOE's "Senior External Events Review Group" that advised DOE on seismic and wind design criteria for their proposed new production reactor design; and he chaired the "Committee on Remediation of Buried and Tank Wastes" for several years for the National Research Council/National Academy of Sciences under the Board on Radioactive Waste Management. Dr. Budnitz has also performed research in and worked extensively in the fields of nuclear-reactor safety, high-level-waste safety, and nuclear-facility safety assessment, including probabilistic risk assessment.

Dr. Budnitz earned a Ph.D. in physics from Harvard University in 1968, an M.A. in physics from Harvard in 1962, and a B.A. in physics from Yale University in 1961.

Dr. Michael Quinn

Dr. Michael Quinn has been continuously engaged in evaluating, supporting, operating, managing, and overseeing commercial nuclear power and/or government nuclear reactor sites since 1975. His hands-on and oversight experience includes:

- 25 years on the operating and management staff of nuclear plants, including senior site management positions, earning a Senior Reactor Operator's License (SRO), and as a member of the Recovery Team, developing programs and leading teams to correct organizational issues that caused a four-year US NRCmandated shutdown at Millstone Station, a multiple-plant site. While at Millstone, Michael was a member of a small team that developed and commissioned nuclear safety and safety conscious work environment (SCWE) programs to support Millstone restart. Two years later, the US NRC adopted SCWE into its Reactor Oversight Program.
- 24 years as an independent nuclear consultant, including on-site evaluation of nuclear organizational performance at over 40 nuclear generation units in the US and Canada as well as research reactors and US DOE nuclear facilities. He has developed and delivered courses related to nuclear performance investigations and oversight to both nuclear utilities and resident inspectors assigned to the four US NRC Regional offices. Other courses he has developed and delivered include "Nuclear Safety Culture" and "Safety Conscious Work Environment" (SCWE).
- He has just begun implementing the fourth consecutive five-year contract to teach US NRC inspectors and technical staff how to evaluate adequacy of Root Cause Analysis/Event Investigation performance prepared by nuclear plant licensees (recently expanded from 3 days to 4.5 days). Dr. Quinn and his team are the only individuals who have taught this subject as well as safety culture to US NRC inspectors.

A limited sample of his past assignments that illustrate his qualifications to serve on the Diablo Canyon Independent Safety Committee include:

- 2025: Training US NRC inspectors. Since 2006, has taught over 600 US NRC inspectors and technical staff in 51 three-day training deliveries, and also trained US NRC Augmented 95003 Inspection Teams. The course recently expanded to 4.5 days; contract extends into 2029.
- **2024**: One of five independent, external evaluators requested by Darlington Nuclear Power and Bruce Nuclear Power (both stations in Ontario Canada) to

independently evaluate a spontaneously fissioning neutron source in CANDU reactor component waste.

- **2024**: Key member of an independent team that conducted a several month safety culture/safety conscious work environment (SCWE) assessment at Columbia Nuclear Generating Station in Richland, WA.
- 2023: Led an independent team that evaluated technical program performance and Safety Culture at the NIST Center for Neutron Research (NCNR) in Gaithersburg MD following a significant reactor event that resulted in nuclear fuel damage (melted fuel); Team report is publicly available here: <u>https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML2</u> <u>3207A041</u>
- 2022: Led an independent Team in a four-month evaluation of Conduct of Operations, technical programs, and safety culture, following a series of significant events at the Department of Energy's transuranic waste repository Waste Isolation Pilot Plant (WIPP) outside Carlsbad, NM. The Team delivered a Collective Significance Report and organizational Recovery Plan.
- **2000-2022**: Led independent assessments and evaluations of: (1) significant and 'unplanned' nuclear events at more than 20 nuclear power units in the United States and Canada (responded to: reactor trips/transients, transuranic uptakes, nuclear program breakdowns); (2) Operational Reliability assessments, Technical Engineering Rigor and Conduct of Operations assessments at 15 nuclear facilities in the US and Canada; (3) Safety Culture and SCWE.
- **2002-2021**: Led Independent Spent Fuel Storage Installation [ISFSI] operational assessments and significant event evaluations at four ISFSI facilities in four states (IL, MA, ME, CT).
- **2008-2009**: Key team member on a several month Reliability Assessment of Vermont Yankee for the State of VT to determine feasibility of plant license extension beyond the 40-year license. Was lead assessor of the Root Cause process within the Corrective Action Program evaluation.
- **2017-2018**: Taught Operational and Event Causal Analysis Evaluation to the Japan Nuclear Regulation Authority (JNRA) staff and to Canada Nuclear Safety Commission (CNSC) staff.

Reports and recommendations from many of these assignments are available for viewing.

Dr. Quinn has a demonstrated history of successfully and accurately communicating his evaluations, reports, and recommendations in objective, empirically-based, plain language to a broad spectrum of stakeholders. His reports are relevant, objective and

ED/Resolution E-5399 DRAFT Diablo Canyon Independent Safety Committee /DZ1

balanced, based upon established facts and empirical evidence, and focus on addressing the problems at hand rather than reporting what "someone" may have wanted to hear. His recommendations and corrective actions address the substantive problems, the causal factors that enabled the problems, and the processes that should have identified and addressed the causal factors at an earlier, safer, more risk-compliant time.

Dr. Quinn has delivered his independent assessments to federal and state agencies, state and federal regulators, utility commissions, Boards of Directors, nuclear utility executives, nuclear plant staff, external interest groups, and the public. He has presented findings in closed and open settings, as well as in public forums with regulators, town hall attendees, and public stakeholders.

What Dr. Quinn can bring to the DCISC:

Upon appointment Dr. Quinn will bring a current and comprehensive body of work experience in nuclear operations assessment to the Committee. His first-hand experience is grounded in: (1) directly operating and evaluating nuclear plants rather than studying them without personally experiencing them, and (2) living through significant operational challenges that he investigated as a member of plant staff. This experience has provided him with in-depth, hands-on knowledge that cannot be obtained otherwise, and set the stage for his subsequent consulting work. He has been personally involved in preparing for and executing "final plant shutdowns"; this experience applies to Diablo Canyon in the context of a permanent shutdown at some future point and includes:

- Assessing factors for maintaining Operational Excellence prior to permanent shutdown
- Assessing factors that maintain (or indicate decline in) the conduct of operations focus on and fidelity to plant systems, structures, and components; as well as to procedure, program, policy, and license requirements.
- Assessing extent to which the organization maintains the expected performance level of the cross-cutting areas: Safety Culture, Human Performance, and "Problem Identification & Resolution" as the station approaches permanent shutdown.

On a personal note:

From 2002-2011 and 2012-2021, Dr. Quinn served on the Connecticut Community Care Inc. (CCC) Board of Directors, a non-profit health care service provider with 250 employees who are responsible for over 9,000 compromised individuals in need. His last CCC role was Chair of the Board. He took a mandatory year off due to a term limit requirement in the CCC Charter.

Dr. Quinn is a four-decade American Red Cross blood donor, during this time donating 16 gallons.

LinkedIn: <u>https://www.linkedin.com/in/quinnmd/</u>

Google Scholar: <u>https://scholar.google.com/citations?hl=en&user=lFjU6ncAAAAJ</u>

Dr. Raluca Scarlat

Professor Raluca O. Scarlat is an Associate Professor in the Nuclear Engineering Department at University of California (UC) Berkeley. Prof. Scarlat's research encompasses chemistry and materials for nuclear fusion and fission energy, as well as batteries, and critical minerals. Prof. Scarlat has expertise in electrochemistry and physical chemistry, corrosion, tritium management, advanced nuclear reactors, reactor safety and thermal-hydraulics, and engineering ethics.

Prof. Scarlat's expertise in the areas of (1) Nuclear Reactor Safety and Thermal-Hydraulics, (2) Materials and corrosion, and (3) Plant Operation is of relevance to (1) understanding inspection and maintenance, sensor calibration, interfacing with Nuclear Regulatory Commission (NRC) inspections, necessary operator and staff training, human factors considerations, regulations and procedures, severe accident management guidelines, understanding application of safety principles, functioning principles of passive and active safety systems, probabilistic risk assessment for the units; (2) corrosion control, materials degradation, environmental monitoring and transport of radioisotopes in the environment; (3) adequate staffing and training, outage planning, sensors and controls, refueling operations, emergency preparedness, worker safety, and the role of the safety culture.

Prof. Scarlat has co-authored 46 journal publications, 38 refereed conference proceedings, and a book chapter. She currently serves on the Nuclear Safety Committee and the Advisory Committee for UC Davis' McClellan Nuclear Research Reactors in Sacramento, CA. Prof. Scarlat served two terms on the Nuclear Energy Advisory Committee (NEAC) for the US Department of Energy, Office of Nuclear Energy. Prof. Scarlat has been awarded the American Nuclear Society (ANS) Mary Jane Oestmann Achievement Award in 2021. She has served as a working group member for the Development of ANS 20.2 Standard, "Nuclear Safety Design Criteria and Functional Performance Requirements for Liquid-Fuel Molten Salt Reactor Nuclear Power Plants.," and on the American Society of Mechanical Engineers (ASME) standards task group on graphite issues for Molten Salt Reactors (MSRs).

Prof. Scarlat has established the SALT research group at UC Berkeley, with capabilities in high temperature experimental studies for molten salts and high temperature materials, with the unique capability of handling both beryllium, which is respiratory and dermal hazard, and radioactive materials; each semester 15 to 25 graduate students, postdoctoral scholars, and undergraduate students train and perform research in the SALT Lab. Prior students and postdoctoral scholars are now faculty, research scientists at national laboratories, and engineers in advanced reactor companies.

Prof. Scarlat completed her Ph. D. in Nuclear Engineering with Designated Emphasis in Energy Science and Technology at UC Berkeley in 2012; a Certificate in Management of Technology, Haas School of Business at UC Berkeley in 2009; and her B.S. in Chemical and Biomolecular Engineering, Cum Laude from Cornell University in 2006. Prof. Scarlat worked as a chemical engineer for ExxonMobil, developing and deploying abnormal event detection applications for petrochemical plants, and training engineers and operators in the development and use of advanced controls applications; she received a Leadership Award from the ExxonMobil Automation & Optimization Division in Dec. 2006. In fall of 2011, after the Fukushima Dai-Ichi Nuclear Power Plant accident, Scarlat joined Hitachi GE, in Ibaraki Prefecture, Japan, for an engineering internship, to study severe accident progression at Fukushima Dai-Ichi Units 1 and 2, for the purpose of making recommendations towards improving severe accident management at the boiling water reactors (BWRs) in Japan. She was an assistant professor at University of Wisconsin Madison, in the field of thermal-hydraulics and reactor safety from 2014 to 2018. She joined as faculty of UC Berkeley Nuclear Engineering in 2019, where she performs research on chemistry and corrosion in molten-salt media; she also holds a Chemist Faculty Scientist/Engineer position at Lawrence Berkeley National Laboratory. Prof. Scarlat has taught graduate and undergraduate courses on Molten Salt Reactors and Tritium Breeding Blankets; Nuclear Fuel Cycle; Ethics, Engineering and Society; Molten Salt Chemistry and Corrosion; Engineering Thermodynamics; Nuclear Engineering Design; Economic and Environmental Aspects of Nuclear Engineering; Molten Salt Technology; and Safety Analysis and Process Safety, and she currently serves as the head undergraduate curriculum adviser for the Nuclear Engineering Department at UC Berkeley.

END OF APPENDIX A

APPENDIX B

APPENDIX B

The following are all of the public comments submitted regarding the applicants for the Diablo Canyon Independent Safety Committee. The comments are grouped by candidate and are provided verbatim.

3/26/25, 8:48 AM

Mail - Zizmor, David - Outlook

💁 Outlook

[EXTERNAL] Public Comment Supporting Robert Budnitz, Ph.D.'s Renomination to the DCISC

From government@cgnp.org <government@cgnp.org> Date Tue 3/25/2025 10:52 PM

To Zizmor, David <David.Zizmor@cpuc.ca.gov>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

25 March 2025

Hello, David:

As a long-time participant (since 2007) in the Diablo Canyon Independent Safety Committee (DCISC,) I wanted to share my observations in support of Robert Budnitz, Ph.D. being renamed to the Committee,

I'm confident you already know how well he conducts himself as an expert in probabilistic risk assessment as applied to DCPP safety. You have likely observed him conducting DCISC meetings in a fair, efficient, businesslike manner via live or videotaped sessions.

I wanted to share my observations of what happens during meeting breaks on a consistent basis. Dr. Budnitz takes time to further explain scientific and engineering principles or concepts to plant opponents whose comments and questions demonstrate their failure to understand a topic or concept being discussed by the DCISC. Dr. Budnitz conducts this important outreach in a friendly, collegial manner. While Dr. Budnitz would likely prefer to discuss issues with people who already understand these concepts, he understands that this public outreach is one of the DCISC missions. (I've observed other DCISC members such as A. David Rossin, Ph.D. (1931-2020) conducting this public outreach starting with my very first DCISC meeting in 2007.)

In summary, I believe DCISC would benefit from Dr. Budnitz being renamed to the DCISC. Please confirm you received my comments.

Sincerely,

/s/ Gene Nelson, Ph.D. CGNP Senior Legal Researcher and President Californians for Green Nuclear Power, Inc. (CGNP) 1375 East Grand Ave Ste 103 #523 Arroyo Grande, CA 93420-2421 (805) 363 - 4697 cell Government@CGNP.org email <u>https://CGNP.org</u> website <u>https://greennuke.substack.com</u> Substack 2/27/25, 4:31 PM

Mail - Zizmor, David - Outlook

💁 Outlook

[EXTERNAL] DCISC Candidate Robert J Budmitz

From R Ferman Wardell <ferman@wardell.com> Date Thu 2/27/2025 4:29 PM

- To Zizmor, David <David.Zizmor@cpuc.ca.gov>
- Cc Ferman Wardell <fwardell@bellsouth.net>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Zizmor, I am writing in support of Dr. Robert J. Budnitz to continue for another term on the Diablo Canyon Independent Safety Committee.

First, to let you know, I have been employed by the DCISC since about 1992 as a Technical Consultant, so I have a special perspective on DCISC's members. Thus, I have known Dr. Budnitz's contributions for many years. To say it concisely, Dr. Budnitz's qualifications in two particular areas, Seismology and Probabilistic Risk Analysis (PRA), fill two important areas of operational safety review for Diablo Canyon Power Plant. These are essential for effective Committee performance. Also, as a former high-level employee of the Nuclear Regulatory Commission for many years, he has first-hand knowledge of how NRC licenses nuclear power plants.

In conclusion, Dr. Budnitz is a particularly good fit for the Committee, and his absence would leave large technical gaps, which would be derogatory to Committee effectiveness.

Thank you for your consideration.



704-236-5200 Mobile 704-374-1120 Home 3/11/25, 3:26 PM

Mail - Zizmor, David - Outlook

💁 Outlook

[EXTERNAL] Comment In Support of Dr. Michael Quinn for DCISC

From Julie Mansfield-Wells <ja.gibson@att.net>

Date Tue 3/11/2025 3:25 PM

- To Zizmor, David <David.Zizmor@cpuc.ca.gov>
- Cc attorneygeneral.appointments@doj.ca.gov <attorneygeneral.appointments@doj.ca.gov>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Zizmor,

I am submitting my public comment, below, which was sent to the Diablo Canyon Independent Safety Committee (DCISC) regarding Dr. Robert Budnitz' behavior during recent DCISC meetings, specifically the meetings in October, 2024.

https://slo-span.org/meetings/DCISC/

https://slo-span.org/meeting/dcisc_20241009/ beginning @ 5:26

https://slo-span.org/meeting/dcisc_20241010/ beginning @ 4:37

I believe it is time for Dr. Budnitz to retire from this important oversight position and step aside. Unfortunately, Dr. Budnitz has chosen to apply once again for the DCISC position, and now it is up to the CPUC and the Attorney General to rectify this situation.

I support the appointment of Dr. Michael Quinn as the appointee of California Attorney General Rob Bonta, Dr. Quinn is highly qualified and will bring a fresh perspective to the DCISC and its mission to oversee safety and security concerns at Diablo Canyon Nuclear Power Plant.

Thank you for your consideration,

Kind regards,

Julie Mansfield-Wells Los Osos, California

----- Forwarded Message -----From: Julie Mansfield-Wells <ja.gibson@att.net> To: dcsafety@dcisc.org <dcsafety@dcisc.org> Sent: Thursday, February 20, 2025 at 04:07:46 PM PST Subject: Public Comment - Non Agenda Item

Hello DCISC,

3/11/25, 3:26 PM

Mail - Zizmor, David - Outlook

I'm writing as a resident of Los Osos, California for the past 39 years. I raised my family here and have closely followed issues at the Diablo Canyon Nuclear Power Plant since before I moved here.

First of all, I would like to thank the Diablo Canyon Independent Safety Committee (DCISC) for your work to review Diablo Canyon operations for the purpose of assessing the safety of operations and suggesting any recommendations for safe operation.

There have been previous discussions of term limits for Committee members, and I believe that a 12-year term limit (four three-year terms) would be appropriate for the DCISC.

When Committee members are continuously re-appointed, the oversight they are mandated to perform can become tainted by their relationship with the corporation they are overseeing. It appears this has become the case with Dr. Robert Budnitz.

As you know, Dr. Budnitz has served on the Committee for 18 years, since October, 2007, and is up for re-appointment for a seventh term at the end of June, 2025. It has become clear that Dr. Budnitz is so enamored of his own opinions that he is now a detriment to public safety and cannot provide objective oversight of PG&E.

Dr. Budnitz has expressed that he does not believe there is any imminent seismic threat or embrittlement issues at Diablo Canyon, or any other problems for that matter. He summarily dismisses other experts' opinions while advocating for his own factfinding reports that everything is perfect at the plant.

During the October, 2024, DCISC meeting, Dr. Budnitz attempted to bully the other members of the Committee to adopt his factfinding report by telling them "you owe it to me" to adopt his report, talking down to them, raising his voice, and denigrating them (his "DUH!" comment.) Sadly, that was Dr. Meskati's first public meeting with the Committee.

Dr. Budnitz appears to now be part of the "good old boy" club at PG&E, and many times acts as if he, himself, works for PG&E. In every circumstance, he advocates for PG&E rather than the public safety which he was appointed to protect. His pedantic and overbearing presence in DCISC meetings has a chilling effect on public participation and discussion.

There comes a time when age catches up with us, and objectivity no longer exists. I strongly implore Dr. Budnitz to admit this and realize he has done good work in the past, but now it's time to step down at the end of his term on June 30, 2025, and let someone else do this important work.

With sincere best regards to Dr. Budnitz,

Julie Mansfield-Wells Los Osos, California 3/3/25, 2:36 PM

Mail - Zizmor, David - Outlook

💁 Outlook

[EXTERNAL] Appointment to Diablo Canyon Independent Safety Committee

From Linda Parks <voteforparks@gmail.com>

Date Mon 3/3/2025 11:56 AM

To Zizmor, David <David.Zizmor@cpuc.ca.gov>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon,

I am writing to request a new Committee member be appointed to replace Dr. Budnitz on the Diablo Canyon Independent Safety Committee. I know it is an unusual request, however after attending the November 28, 2024 meeting of the DCISC, it was apparent that Dr. Budnitz's demeanor and lack of objectivity are a disservice to the public process, his fellow committee members and individual members of the public.

As a former public official, I know the importance of avoiding even the appearance of a conflict of interest and remaining independent. This would seem of the utmost important for someone serving on the Diablo Canyon *Independent* Safety Committee. Whether due to Dr. Budnitz's long history of working with the nuclear industry, working hand in glove with PG&E, or perhaps just being impatient, complacent, and used to getting his way, the result was a lack of collegiality with his fellow committee members and an obvious intolerance for views that differed from his. His overbearing attitude rose to such a level that members of the public chastised him, on the record, for being "a bully."

Dr. Budnitz no doubt has had a long, distinguished career. However, at this point the position he is in would be better suited for someone who honors the public process, respects his colleagues, and is willing to listen and consider input.

Thank you for your consideration,

Linda Parks

Rear Admiral Michael T. Coyle, U.S. Navy (Ret) 2361 E. Gossamer Lane Boise, Idaho 83706 <u>Mtcoyle1943@gmail.com</u>

March 3, 2025

David Zizmor, Esq.

Public Utilities Regulatory Analyst California Public Utilities Commission – Energy Division 505 Van Ness Avenue San Francisco, CA 94102

Dear Mr. Zizmor,

I am writing you on behalf of Dr. Michael Quinn, a candidate for appointment to the Diablo Canyon Independent Safety Committee. I have worked with Dr. Quinn on a number of nuclear safety assessments at government facilities. His competence and professionalism as a team leader has been impressive. His insights are exceptional. His ability to focus on getting to the root of safety issues in a effective manner is outstanding. In my nearly sixty years of nuclear experience in Navy, commercial nuclear, and Energy Department organizations, including as a member of the Duane Arnold Nuclear Plant Off-Site Safety Committee, I consider Mike as one of the best. I believe that he will make a valuable contribution to the Diablo Canyon Independent Safety Committee and highly recommend his selection.

Thank you.

Sincerely,

Michael T Coyle

Comments on Qualifications of Dr. Michael Quinn

Dear Sir,

I am honored to have the opportunity to provide comments on the qualifications of Dr. Quinn. I have worked in the nuclear industry for over 48 years with experience in reactor operations, training, maintenance, start-up, troubled plant recovery, and coordination of oversight for TVA's nuclear plants. I am a graduate of the United States Naval Academy who qualified as a Nuclear Engineer in the Naval Reactors Program.

For the past 8 years, I have had the honor to work with Dr. Quinn on multiple projects involving recovery of troubled plants and organizations. Dr. Quinn is the ideal candidate for appointment to the Diablo Canyon Independent Safety Committee. His far-ranging knowledge of nuclear operations and management of nuclear safety issues is evident based on his continuing professional successes. He has an SRO license and years of experience in identification and correction of safety issues. He is a recognized expert in root cause analysis as well as nuclear safety culture assessment and implementation. His recent experience includes leading teams to identify performance issues at the Waste Isolation Pilot Project (nuclear facility storing transuranic waste) and to evaluate the state of the nuclear safety culture at the NIST NCNR reactor facility (NRC licensed facility).

As TVA's Nuclear Safety Review Board coordinator during the restart of Sequoyah and Browns Ferry Nuclear Plants, I had the opportunity to interact with each member of our off-site review committees. Dr. Quinn would have been a welcome addition.

Most recently, I have had the opportunity to observe Dr. Quinn's ability to assess complicated organizational and technical issues at high hazard nuclear facilities. He has the unique ability to be able to identify issues, capture their significance, and develop recommendations to correct the issues. His knowledge of NRC regulations is unsurpassed. He has an excellent relationship with NRC personnel and management having instructed many of them in the NRC root cause analysis course. Specifically, he and his team are the exclusive instructors teaching NRC personnel how to assess and review the adequacy of root cause submittals to the NRC. Dr. Quinn is well spoken and is sensitive to the importance of his reports and how they impact public perceptions. I have witnessed his outstanding ability to effectively communicate to all levels of management and external stakeholders.

Dr. Quinn's ability to lead teams is unparalleled. He functions at a high level, is energetic, and ensures all team members are heard. He has demonstrated mastery of capturing the data inputs, processing the information and communicating all critical items to the customers and regulators in a manner that promotes understanding of important issues. He is excellent at identifying issues that could potentially lead to future problems and has a history of developing corrective actions to resolve the potential issues. He is candid, personable, and has the unique ability to see and understand the "big picture" issues and needs. I am honored to have worked with him.

In short, I cannot think of a better person than Dr. Quinn for the Diablo Canyon Independent Safety Committee. He will make an immediate positive impact if chosen for the position.

Steven K. Crowe, Captain, USNR (ret)

Michael J. Fecht 2675 Old Bethel Rd. Chickamauga, Georgia 30707 (423) 618-5994

David Zizmor, Esq. Public Utilities Regulatory Analyst California Public Utilities Commission _ Energy Division 505 Van Ness Avenue San Francisco, Ca 94102 (415) 703-1575

2025 Nomination of Dr. Michael D. Quinn, Diablo Canyon Independent Safety Committee

Mr. Zizmor,

I am pleased to recommend Dr. Michael D. Quinn for consideration as a member of the Diablo Canyon Independent Safety Committee (DCISC). With over 50 years of experience in the nuclear industry—including roles in nuclear operations, quality assurance, and service on oversight committees such as the Nuclear Safety Review Board (NSRB) at the Tennessee Valley Authority (TVA)—I understand the importance of selecting individuals with the right expertise and leadership for this critical role.

I first met Dr. Quinn six years ago during an independent assessment of a nuclear facility, where I was immediately impressed by his analytical skills and deep understanding of nuclear safety culture. Prior to that, I was already familiar with his work alongside Dr. William Corcoran in nuclear industry root cause analysis. Since then, I have had the privilege of working with Dr. Quinn on two Nuclear Safety Culture facility assessments, where his leadership was instrumental in the success of each effort. Based on my extensive experience, I can confidently say that Dr. Quinn possesses the qualifications necessary to make a meaningful contribution to the DCISC.

Dr. Quinn's broad expertise in the nuclear power industry equips him with the technical and analytical skills required for effective oversight of facilities like Diablo Canyon. Having observed both exemplary and ineffective oversight practices throughout my tenure with TVA, I recognize the critical need for individuals who understand both the technical and operational challenges of nuclear facilities. Dr. Quinn's background ensures he can navigate these complexities while maintaining a steadfast commitment to safety.

Beyond his nuclear industry experience, Dr. Quinn has also served on a local community nonprofit board, where his leadership, integrity, and ability to foster productive discussions were evident. His dedication to safety, accountability, and sound decision-making extends beyond his professional work and into public service.

ED/Resolution E-5399 DRAFT Diablo Canyon Independent Safety Committee /DZ1

In summary, Dr. Quinn's extensive experience, analytical expertise, and commitment to nuclear safety make him an outstanding candidate for the DCISC. His appointment would enhance the committee's oversight capabilities and reinforce its mission to ensure the integrity and security of Diablo Canyon. I strongly support Dr. Quinn's candidacy and encourage his consideration for this esteemed position.

Should you require any further information regarding Dr. Quinn's qualifications, please do not hesitate to contact me. Thank you for your time and consideration.

Sincerely, Michael Fecht 3/11/25, 3:26 PM

Mail - Zizmor, David - Outlook

💁 Outlook

[EXTERNAL] Comment In Support of Dr. Michael Quinn for DCISC

From Julie Mansfield-Wells <ja.gibson@att.net>

Date Tue 3/11/2025 3:25 PM

- To Zizmor, David <David.Zizmor@cpuc.ca.gov>
- Cc attorneygeneral.appointments@doj.ca.gov <attorneygeneral.appointments@doj.ca.gov>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Zizmor,

I am submitting my public comment, below, which was sent to the Diablo Canyon Independent Safety Committee (DCISC) regarding Dr. Robert Budnitz' behavior during recent DCISC meetings, specifically the meetings in October, 2024.

https://slo-span.org/meetings/DCISC/

https://slo-span.org/meeting/dcisc_20241009/ beginning @ 5:26

https://slo-span.org/meeting/dcisc_20241010/ beginning @ 4:37

I believe it is time for Dr. Budnitz to retire from this important oversight position and step aside. Unfortunately, Dr. Budnitz has chosen to apply once again for the DCISC position, and now it is up to the CPUC and the Attorney General to rectify this situation.

I support the appointment of Dr. Michael Quinn as the appointee of California Attorney General Rob Bonta. Dr. Quinn is highly qualified and will bring a fresh perspective to the DCISC and its mission to oversee safety and security concerns at Diablo Canyon Nuclear Power Plant.

Thank you for your consideration.

Kind regards,

Julie Mansfield-Wells Los Osos, California

WOMEN'S ENERGY MATTERS

March 24, 2025

Delivered by E-mail

Mr. David Zizmor California Public Utilities Commission 505 Van Ness Ave. San Francisco, CA 94102 david.zizmor@cpuc.ca.gov

Re: Public Comment Supporting Candidacy of Dr. Michael Quinn for Appointment to Diablo Canyon Independent Safety Committee

Dear Mr. Zizmor:

Women's Energy Matters (WEM) writes in support of the candidacy of Dr. Michael Quinn for appointment to the Diablo Canyon Independent Safety Committee (DCISC).

WEM is a non-profit advocacy group that has participated in CPUC proceedings related to Diablo Canyon Nuclear Power Plant for many years, including as a party to PG&E's NDCTP proceedings and proceedings related to extended operations. As WEM's Executive Director, I regularly attend DCISC meetings via SLO-SPAN, and am familiar with the DCISC's work product and the scope of issues the Committee addresses.

Dr. Quinn's application evidences a breadth of experience in the nuclear industry, including evaluating unplanned nuclear events (reactor trips/transients, transuranic uptakes, nuclear program breakdowns); developing curriculum for, and instructing NRC inspectors and staff on how to best evaluate licensee-prepared root cause analyses and event investigations; evaluating operational reliability assessments; and addressing safety culture at US and Canadian nuclear power plants.

Dr. Quinn has experience with nuclear waste issues, including conducting safety evaluations at the U.S. Department of Energy's WIPP facility, and at nuclear plant ISFSIs in Illinois, Massachusetts, Maine, and Connecticut.

The current incumbent, Dr. Robert Budnitz, has served on the DCISC as the Attorney General's appointee since 2007. WEM appreciates his long service, but believes that Dr. Quinn will bring new perspective and experience to the Committee at a time when the scope of the committee has expanded to include safety issues related to decommissioning, and to extended Mr. David Zizmor March 24, 2025

operations. As the DCISC takes on new and challenging responsibilities, WEM recommends Dr. Michael Quinn as the candidate best qualified to serve as the Attorney General's appointee.

Sincerely,

Jean Menair

Jean Merrigan, Executive Director Women's Energy Matters P. O. Box 2615 Martinez, CA 94553 (925) 957-6070 jnmwem@gmail.com

Matthew W. Sunseri 11495 FM 1486 Rd. Richards, Texas 77873

March 4, 2025

David Zizmor, Esq. Public Utilities Regulatory Analyst California Public Utilities Commission – Energy Division 505 Van Ness Avenue San Francisco, CA 94102 (415) 703-1575

2025 Nomination of Dr. Michael D. Quinn, Diablo Canyon Independent Safety Committee (DCISC)

Dear Mr. Zizmor,

I am Matthew Sunseri, a nuclear industry professional for over 40 years. I have served as president and chief nuclear officer at a commercial nuclear operating company in the US before retiring. As an industry consultant currently, I serve as chairman of an independent safety board for a nuclear facility in Canada, and I also am a member and former chair of a statutory required governmental safety committee in the US. I am writing to you not in those official capacities but as an individual member of the public.

I have known Dr. Quinn for quite a long time, am familiar with his work and worked with him on a project. He would be an excellent contributor as a member of the DCISC for the following reasons.

Dr. Quinn has twenty-five years of nuclear power plant experience. I have observed in my career that highly effective safety oversight individuals all possess a common factor. They understand the business and technology that they are reviewing. Dr. Quinn's experience positions him to provide excellent oversight of an operating nuclear power facility such as Diablo Canyon.

Dr. Quinn has twenty years of consulting experience primarily in event and organization analysis. This experience enables Quinn to know how to ask the right questions at the right time in order to make the most effective use of the committee's precious time at the operating facility. The fact that Dr. Quinn also teaches analysis techniques demonstrates his proficiency with these skills. Dr. Quinn has served as a board member and chairman of a local community not-for-profit board. In this service, Dr. Quinn demonstrated his ability to create a safe environment for discourse, to achieve consensus among the members and to produce results. I expect that these skills will enable Dr. Quinn to work very effectively with the three member DCISC.

In closing, Dr. Michael D. Quinn possess the background, skills and abilities to be an effective member of the DCISC, and I highly support his nomination.

Sincerely,

M W Sunseri

Matthew W. Sunseri

1

Performance Management Initiatives, Inc. Richard N. Swanson President

720 S. Greenbrook Circle St. Joseph, Michigan 49085 voice: (269) 428-7447 mobile: (773) 230-8989 email: RNS@pmi-inc.com

March 02, 2025

California Public Utilities Commission, Energy Division 505 Van Ness Avenue San Francisco, CA 94102-3298

Attn: Mr. David Zizmor

Subj: Nomination of Dr. M. D. Quinn for membership on the Diablo Canyon Independent Safety Committee

Dear Mr. Zizmor:

I am writing in support of Dr. Michael D. Quinn's candidacy for a position on the Diablo Canyon Independent Safety Committee. I have known Dr. Quinn for approximately 19 years and have worked closely with him on several analytical, oversight, and instructor assignments associated with nuclear safety performance at US nuclear power plants.

In my considered professional opinion, Dr. Quinn is well-suited to be a member of an Independent Safety Committee for a nuclear plant by virtue of his professional credentials, his education, his work experience, his impeccable work ethic, and his scrupulous ethics. I highly recommend him.

FORMAL CREDENTIALS include:

- Senior Reactor Operator License #10071;
- Certification as a Radiation Safety Officer;
- Certification as a Root Cause Investigator and Trainer;
- Certification to conduct Behavioral Interviews.

EDUCATIONAL ACHIEVEMENTS include:

- Doctor of Science (Sc.D.) in Organizational Management Systems;
- Masters of Business Administration (MBA);
- Bachelor of Science (B.S.) in Chemistry;
- Numerous technical training courses related to the nuclear industry such as: .
 - Emergency Planning
 - Emergency Response Assessment
 - Nuclear operations
 - Radiation protection
 - Welding

INSTRUCTIONAL COURSE DEVELOPMENT AND DELIVERIES include developing and delivering training courses to:

- <u>US NRC Resident Inspectors</u> regarding <u>how to evaluate investigation report</u>s (prepared by Nuclear Plant personnel) of plant events with nuclear safety significance (four consecutive contracts, 2006 through present);
- Nuclear plant personnel regarding <u>how to conduct Root Causal Analysis (Event</u> <u>Investigation) of plant events</u> having safety significance;
- Safety Conscious Work Environment (SCWE); and
- Nuclear Safety Culture.

WORK EXPERIENCE includes almost 50 years of hands-on and oversight assignments in the nuclear industry.

- <u>25 years' experience at nuclear generation plants</u> in positions such as:
 - Director of Station Emergency Operations;
 - Director of Station Services;
 - Chemistry Manager;
 - Project Manager;
 - Chairman of the Plant Operations Review Committee;
 - Chairman of the Corrective Actions Review Board;
 - Member of the Nuclear Safety Assessment committee;
 - Nuclear Refueling and Maintenance Outage Manager;
 - Radio-Chemist and Manager of Planning and Operational Standards.

Executive level nuclear consultant for the past 24 years, providing services to the nuclear industry that included:

- the nuclear industry that included:
- Root Cause Analysis/Event Investigation;
- Safety Culture evaluations;
- Recovery plans for deficient safety cultures;
- Nuclear program and reliability assessments;
- Corrective Action Program diagnostics and remedial actions;
- Many other assessments of performance-limitations

Virtually all of his consulting assignments involved interacting with, reporting results to, and providing performance advice to senior utility executives.

Dr. Quinn conducts both his professional and personal life on the basis of <u>scrupulous</u> <u>ethics</u>. His technical and managerial work products, and his behavior, meet the highest standards of integrity. He <u>verifies his facts and data</u> before reaching conclusions and makes extensive use of "peer checks" and "independent verification." He is able to explain the <u>detailed basis for every conclusion and finding of fact</u> he produces. He takes his responsibility to support nuclear safety very seriously and demonstrates his commitment through <u>exemplary professional behavior</u> at all times. If he does not know the answer to a question, he says so—and then finds out. If he is provided with additional facts he had not previously considered, he reconsiders his conclusions based on both the old and new information. He is not only "truthful" ('tells the truth'), he is also <u>"honest"</u> ('tells the entire set of relevant facts and the context in which they apply'). I have personally observed on several occasions that, when justified by his observations, his feedback to

Letter of Recommendation for Dr. Michael D. Quinn 03/02/2025

ED/Resolution E-5399 DRAFT Diablo Canyon Independent Safety Committee /DZ1

individuals in senior positions includes "tough" messages regarding substandard performance and less than adequate personal executive involvement.

I have been a senior manager at several nuclear plants in the course of my 53-year career, and have managed several departments, including Engineering, Quality Assurance, Regulatory Affairs, and Construction. When it comes to describing the individual I would most value to independently assess my areas of responsibility and tell me the painful reality regarding what I really need to know about my organization, Dr. Quinn is the exemplar.

Dr. Quinn is one of only six individuals with whom I am willing to team on consulting assignments—he meets my standards for integrity, persistence, reliability, broad-based knowledge, and 'internalized curiosity.'

I highly recommend him. If you would like to further discuss my personal observations of Dr. Quinn's performance, I would be honored to do so.

Sincerely,

.IN Lon

Richard N. Swanson, P.E. (License Retired)

PO Box 1328

(805) 704-1810 www.a4nr.org

San Luis Obispo, CA 93406



ALLIANCE FOR NUCLEAR RESPONSIBILITY

March 18, 2025

David Zizmor California Public Utilities Commission 505 Van Ness Avenue Energy Division, Fourth Floor San Francisco, CA 94102

Via email: <u>david.zizmor@cpuc.ca.gov</u>

Re: Diablo Canyon Independent Safety Committee Appointment of Dr. Michael Quinn—SUPPORT

Dear Mr. Zizmor:

The Alliance for Nuclear Responsibility would like to support the nomination of Dr. Michael Quinn to the Diablo Canyon Independent Safety Committee (DCISC) as the appointee of the Attorney General of California.

The Alliance's mission includes monitoring ratepayer investments to improve safety and mitigate environmental damage from the operation of the state's last aging reactor. The DCISC is charged with monitoring safety oversight at Diablo Canyon. However, as their charter is a creation of the CPUC, no less an obligation should be their consideration of ratepayer impacts—and safety comes with a price tag—one that PG&E should not be short-changing to enhance its own bottom line.

The current situation at Diablo Canyon calls for as great a degree of oversight as any time in its history. The next two years will see a tremendous amount of renovation and maintenance work undertaken as part of the plan to extend operations beyond the original license expirations in 2024/2025. Although a great number of current employees will be retained, a significant number of new hires coming on board and requiring familiarization with the plant. As complex equipment and systems are upgraded and replaced these processes also bring with them the well-established "bathtub curve"—the start and end of life periods—which portend greater susceptibility to failure.

That is why the Alliance welcomes the candidacy of Dr. Quinn to the DCISC. Today, faced with the dual issues of attempted NRC license renewal *and* the specter of needing to quickly resume the decommissioning process should the extension be forestalled, only his resume' indicates specialized training and experience in both areas of concern.

While it is true that the candidates show strong histories with nuclear science and regulation, Dr. Quinn's resume' stands out for its added emphasis on experience both the pragmatic and *practical*. He has <u>actual plant operation experience</u> having held an NRC licensed Senior Reactor Operator credential. Dr. Quinn, if selected, would be the first former licensee committee member since 2008, and the first member since at least 2008 to hold a Senior Reactor Operator license—specifically for a Westinghouse PWR such as Diablo Canyon.

Given that Diablo Canyon is in the midst of an NRC license renewal process, this qualification from his C.V. also merits attention:

 Member of a team that conducted a several month Reliability Assessment of Vermont Yankee for the State of VT: Lead assessor of the Root Cause process within the Corrective Action Program evaluation, for feasibility of plant license extension beyond the 40-year license [emphasis added]

This is especially valuable as PG&E (and the state) finds itself at the same point as Vermont didand with the same need for ongoing oversight and review sought by the state of California under SB 846—in this process for extending Diablo's operating life.

His work also included tenure at Millstone Nuclear Power Station, where Unit 3 is a Westinghouse PWR with an operational start date of 1986, providing an analog for the units at Diablo Canyon.

Of the current candidates, Dr. Quinn's recognition of Diablo's changing status is unique, and we believe a valuable insight into his thought process and expertise.

The human performance aspects of nuclear power operations are likely to be looming as large as the technical considerations in these next few years. The experiences of a candidate such as Dr. Quinn in identifying and working to mitigate any shortcomings that could impact reactor operations and public safety would be welcomed by ratepayers and stakeholders alike.

As well, Dr. Quinn's tenure at nuclear plants in Connecticut includes the time during which those facilities transitioned from operation to decommissioning. As Diablo's decommissioning is inevitable—and accelerated if the bid to relicense the plant is halted—his experiences will be valuable; those are not found in the CVs of the other candidates.

The Alliance for Nuclear Responsibility endorses Dr. Michael Quinn for appointment to the Diablo Canyon Independent Safety Committee.

Yours truly.

/s/

DAVID WEISMAN Executive Director Alliance for Nuclear Responsibility



PO Box 3608 San Luis Obispo, CA 93403 mothersforpeace.org

March 10, 2025

David Zizmor California Public Utilities Commission 505 Van Ness Avenue Energy Division, Fourth Floor San Francisco, CA 94102

Via email: <u>david.zizmor@cpuc.ca.gov</u>

Re: Support for Appointment of Dr. Michael Quinn on the Diablo Canyon Independent Safety Committee

Dear Mr. Zizmor:

San Luis Obispo Mothers for Peace supports the nomination of Dr. Michael Quinn to the Diablo Canyon Independent Safety Committee (DCISC) as the appointee of the California Attorney General.

Mothers for Peace's mission includes monitoring safety and mitigating environmental damage from the operation of Diablo Canyon. The DCISC is charged with monitoring safety oversight at Diablo Canyon, and with PG&E once again applying for a 20-year license renewal, the need for qualified, unbiased members on the Committee is crucial. There also exists the possibility that Diablo Canyon will immanently be decommissioned.

That is why the Mothers for Peace supports the candidacy of Dr. Quinn to the DCISC. Faced with the dual issues of NRC license renewal *and* proceeding with the decommissioning process, Dr. Quinn's resume indicates specialized training and experience in both areas. Additionally, Dr. Quinn's resume stands out for its emphasis on independent assessments, nuclear safety culture, and root cause analysis.

Sincerely, Jill ZamEk Board Member, San Luis Obispo Mothers for Peace



Todd Allen Glenn F. and Gladys H. Knoll Department Chair 3001 Michigan Memorial Phoenic Project 2355 Bonisteel Boulevard Ann Arbor, MI 48109-2104

734-647-5845 <u>traumicb@umicb.edu</u>

22 March 2025

David Zizmor Diablo Canyon Independent Safety Committee

Subject: Recommendation for Dr. Raluca Scarlat for a position on the Diablo Canyon Independent Safety Committee

Dear Mr. Zizmor:

I am writing to enthusiastically recommend Dr. Raluca Scarlat's application for the Diablo Canyon Independent Safety Committee. She would provide a knowledgeable and balanced input on the committee, bringing expertise in material science, chemistry, heat transfer/reactor safety, and engineering ethics. She is also an excellent communicator.

She would bring an important independent voice and has my strong recommendation.

Sincerely,

Derce

Todd Allen Glenn F. and Gladys H. Knoll Department Chair, Department of Nuclear Engineering & Radiological Sciences, University of Michigan Senior Fellow, Third Way

For your information, I am currently a faculty member and Chair of the Nuclear Engineering & Radiological Sciences Department at the University of Michigan and a Senior Fellow at Third Way, a DC base Think Tank, supporting their Clean Energy Portfolio. I was the Deputy Director for Science and Technology at the Idaho National Laboratory from January 2013 through January 2016. Both the INL and Third Way positions occurred while on leave from the

University of Wisconsin. Previously I was a Professor in the Engineering Physics Department at the University of Wisconsin, a position I held from September 2003 through December 2018. In addition to my teaching and research responsibilities at Wisconsin, I was also the Scientific Director of the Advanced Test Reactor National Scientific User Facility, centered in Idaho Falls, Idaho at the Idaho National Laboratory. I held that position from March 2008-December 2012. I was also the Director of the Center for Material Science of Nuclear Fuel, a Department of Energy-sponsored Energy Frontier Research Center. Prior to joining the faculty at the University of Wisconsin, I was a Nuclear Engineer at Argonne National Laboratory-West in Idaho Falls. My Doctoral Degree is in Nuclear Engineering from the University of Michigan (1997). Prior to graduate work, I was an officer in the United States Navy Nuclear Power Program.

I first met Professor Scarlat when she was a graduate student at the University of California-Berkeley, working with Professor Per Peterson, and I was on the faculty at the University of Wisconsin-Madison. We were all working on a large multi-institution Department of Energy grant focused on fluoride-cooled high-temperature reactors. I was immediately impressed by her research vision, presentation skills, and her clear ability to be a research and community leader. Later while I was on a leave of absence from Wisconsin, I strongly encouraged my colleagues to hire her as an Assistant Professor at the University of Wisconsin-Madison. I worked with her directly as a colleague on the Madison faculty until I moved to the University of Michigan, and she moved to the University of California. I have followed her career since through interactions at technical meetings. 3/21/25, 3:43 PM

Mail - Zizmor, David - Outlook

💁 Outlook

[EXTERNAL] Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee

From Ben Busse

benbusse@gmail.com>

Date Fri 3/21/2025 3:35 PM

To Zizmor, David <David.Zizmor@cpuc.ca.gov>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Zizmor,

I'm a California resident and retired software executive. I'm writing to express my support for Professor Scarlat's application for the Diablo Canyon Independent Safety Committee. Professor Scarlat is an expert in her field who will provide a balanced and knowledgeable perspective for the committee.

Best, Ben Busse

Ben Busse 1 415 699 2343 benbusse@gmail.com 3/21/25, 8:46 AM

Mail - Zizmor, David - Outlook

💁 Outlook

[EXTERNAL] Support for Prof. Raluca Scarlat's Application to the Diablo Canyon Independent Safety Committee

From Merwan Benhabib <merwanbenhabib@gmail.com> Date Thu 3/20/2025 11:58 PM

To Zizmor, David <David.Zizmor@cpuc.ca.gov>

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Dear Mr. Zizmor,

I am writing to express my strong support for Professor Raluca Scarlat's application to the Diablo Canyon Independent Safety Committee. As a California resident and a scientist and engineering leader with over 15 years of experience in product development and regulatory compliance within the medical device and biotechnology sectors, I understand the critical importance of technical rigor, balanced oversight, and public trust in the safety of high-stakes infrastructure.

Professor Scarlat brings not only deep expertise in nuclear engineering but also a thoughtful, balanced approach to assessing complex systems. Her scientific integrity, collaborative mindset, and commitment to public service would make her a valuable addition to the Committee's mission of independent, transparent safety evaluation.

I believe strongly that Professor Scarlat would bring the technical acumen, independence, and civicmindedness that this role requires. I hope you will give her application your full consideration.

Sincerely, Merwan Benhabib, PhD Oakland, California outlook 🚺

[EXTERNAL] DCISC: Prof. Raluca Scarlat

From Karl A Van Bibber <karl.van.bibber@berkeley.edu> Date Fri 3/21/2025 11:01 PM To Zizmor, David <David.Zizmor@cpuc.ca.gov>

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Dear Mr. Zizmor,

I am writing this email as a California resident, a faculty member at the University of California Berkeley, and former Chair of the Department of Nuclear Engineering. I would like to express my strongest support for my colleague, Professor Raluca Scarlat, who has applied to join the Diablo Canyon Independent Safety Committee. Professor Scarlat is a highly accomplished scholar in the field of nuclear engineering; she possesses a deep practical understanding of nuclear safety and would bring much experience to the Committee. Professor Scarlat operates a high hazard research laboratory on campus (high temperature molten beryllium salt chemistry for the next generation of SMR), and is widely renowned by her counterparts nationally for the standards, protocols and meticulous conduct of operations of her lab, and the values and practices she instills in her postdocs and students.

Raluca is a collegial and hard-working member on every committee she serves on. She would provide a knowledgeable and balanced input to the Diablo Canyon Independent Safety Committee, and thus I am pleased to recommend her without any reservations.

Sincerely,

Kart k. man Bikh

Karl van Bibber

Karl A. van Bibber Department of Nuclear Engineering University of California Berkeley 4107 Etcheverry Hall Berkeley, CA 94720 Tel: 510-642-3477

Cell: 831-920-7173 Fax: 510-643-9685 https://axions.berkeley.edu 💁 Outlook

[EXTERNAL] Support of Professor Raluca Scarlat for the Diablo Canyon Independent Safety Committee (DISC)

From Ingrid Bran <ingrid.p.bran@gmail.com> Date Sat 3/22/2025 2:29 PM To Zizmor, David <David.Zizmor@cpuc.ca.gov>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Zizmor:

My name is Ingrid Bran. I live in Oakland, California, and have retired from a career in the electricity industry.

I am writing to you to support the application of Professor Scarlat for DISC.

I have known Professor Scarlat for over ten years and I believe that, as part of the committee, she would contribute her strong academic and research background to provide knowledgeable and stable input.

Please do not hesitate to contact me if you have any questions. Best regards,

Ingrid Bran 134 Strathmoor Drive Oakland, CA 94705 650.279.8774



[EXTERNAL] FW: CPUC Application for Diablo Canyon Independent Safety Committee

From Jacopo Buongiorno <jacopo@mit.edu>

Date Mon 3/24/2025 1:44 AM

To Zizmor, David <David.Zizmor@cpuc.ca.gov>

Cc Jacopo Buongiorno <jacopo@mit.edu>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Zizmor,

I write this email in support of Dr. Raluca Scarlat's application for the Diablo Canyon Independent Safety Committee (DCISC). A brief bio of mine is provided below the signature.

I have known Dr. Scarlat for over a decade, am quite familiar with her research and professional contributions to the disciplines of nuclear safety and materials degradation management, which are relevant to the future of the Diablo Canyon Nuclear Power Plant. I am confident that Dr. Scarlat would provide a rigorous and balanced input to the DCISC.

I provided my contact information below. Feel free to reach out, should you wish to discuss Dr. Scarlat's qualifications for the DCISC.

Best wishes,

Jacopo Buongiorno Professor, Nuclear Science and Engineering Director, CANES **Massachusetts Institute of Technology (MIT)** +1(617)253-7316 http://web.mit.edu/nse/people/faculty/buongiorno.html

BIO

Jacopo Buongiorno is the Battelle Energy Alliance Professor of Nuclear Science and Engineering at the Massachusetts Institute of Technology (MIT), and a member of the U,S, National Academy of Engineering. He is also the Director of Science and Technology of the MIT Nuclear Reactor Laboratory and the Director of the Center for Advanced Nuclear Energy Systems (CANES). Jacopo teaches a variety of courses in thermo-fluids and nuclear reactor engineering. He has published >110 journal articles in the areas of reactor safety and design, two-phase flow and heat transfer, and nanofluid technology. For his research work and his teaching he won several awards, among which an ANS Presidential Citation (2022), the MIT MacVicar Faculty Fellowship (2014), the ANS Landis Young Member Engineering Achievement Award (2011), the ASME Heat Transfer Best Paper Award (2008), and the ANS Mark Mills Award (2001). In 2016-2018 he led the MIT study on the Future of Nuclear Energy in a Carbon-Constrained World. Jacopo is a consultant for the nuclear industry in the area of reactor thermal-hydraulics, a member of the Accrediting Board of the National Academy of Nuclear Training, a Fellow of the American Nuclear Society (including service on its Special Committee on Fukushima in 2011-2012), a member of the American Society of Mechanical Engineers, past member of the Naval Studies Board (2017-2019), past member of the Secretary of Energy Advisory Board Space Working Group, and a participant in the Defense Science Study Group (2014-2015).



March 18, 2025

Mr. David Zizmor Public Utilities Regulatory Analyst California Public Utilities Commission – Energy Division 505 Van Ness Avenue San Francisco, CA 94102

Dear Mr. Zizmor,

I am pleased to recommend Prof. Raluca Scarlat for membership on the Diablo Canyon Independent Safety Committee (DCISC). I have known Prof. Scarlat for over a decade, since she graduated from UC-Berkeley and became a faculty member at the UW-Madison, as well as in her present position as an Associate Professor at UC-Berkeley in Nuclear Engineering. She has become nationally known for her expertise in nuclear reactor safety and plant operations, with an emphasis in chemistry and corrosion. She has continued this emphasis into her current research at UC-Berkeley with a focus on materials interactions in extreme environments that are encountered in current Light Water Reactors (LWRs) as well as advanced small modular reactors (SMRs). For example, her research has enabled the innovative development of a wide range of inorganic liquids for use in a broad range of applications in current and future nuclear reactor designs and fuel cycles: e.g., the development of fluids for advanced molten salt systems as well as the use of such fluids in current fuel cycle applications.

On the national front, Prof. Scarlat served as a member of the Department of Energy Nuclear Energy Advisory Committee (NEAC), which is the premier advisory body to the DOE in nuclear science and engineering. The NEAC advises the Assistant Secretary of Nuclear Energy in matters of research and development for LWR and advanced SMR technologies as well as provides technical and policy advice on the entire nuclear fuel cycle including spent fuel storage and disposition. Recently, she was appointed as a member of the McClellan Nuclear Research Center Nuclear Safety Committee. Last year, she organized the INGSM conference, https://ingsm2024.nuc.berkeley.edu, which included several regulator and industry panels. In addition she developed a graduate course on nuclear fuel cycle and was appointed technical program chair for ICAPP 2026. This broad range of experiences has given her a broad base of expertise in plant operations and safety issues that can be directly applicable to the Diablo Canyon nuclear plant.

Prof. Scarlat has expertise in policy matters that go beyond the technical aspects of nuclear power. Nuclear power relies on stable institutions, and on an independent regulator to ensure safe operation, maintenance and plant inspections. Social acceptance of nuclear power relies on risk communication and engagement with local communities, requiring complete transparency and enabling local communities to have a voice in how the risks to their community are managed and communicated. Prof. Scarlat, as part of her educational mission at UC-Berkeley, instills these principles through her undergrad and graduate classes as well as in her graduate students. She will also bring these principles to her work on the DCISC. In my view, she will be an excellent member of the Diablo Canyon safety committee. Please feel free to contact me if you any further questions.

Sincerely,

Michael Constant

Michael L. Corradini Wisconsin Distinguished Professor

March 24, 2025

David Zizmor California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102

Via Email: david.zizmor@cpuc.ca.gov

SUBJECT: Letter of Support for Professor Raluca Scarlat for the Diablo Canyon Independent Safety Committee

Dear Mr. Zizmor:

I am the Associate Laboratory Director for Nuclear Science and Technology at Idaho National Laboratory (INL), with over 30 years of experience leading organizations performing research and development for the current fleet of light water reactors and advanced reactors. With this background, I am writing to express my strong support for the appointment of Professor Raluca Scarlat to the Diablo Canyon Independent Safety Committee (DCISC). I have had the privilege of knowing and collaborating professionally with Prof. Scarlat for over 15 years. Her extensive expertise in nuclear engineering, particularly in reactor safety, thermal-hydraulics, corrosion control, and materials science, positions her exceptionally well to contribute meaningfully to the critical safety oversight role required by the DCISC.

Prof. Scarlat's background uniquely aligns with the Committee's mission to ensure the safe operation of Diablo Canyon nuclear power plant. Her significant experience includes co-authoring numerous journal articles, conference proceedings, and book chapters on reactor safety, corrosion, and advanced nuclear systems. Additionally, she has served in advisory roles for UC Davis' McClellan Nuclear Research Reactors and the U.S. Department of Energy's Nuclear Energy Advisory Committee (NEAC).

Her leadership at UC Berkeley, where she directs the SALT research group, underscores her capability in managing complex nuclear safety issues, including high-temperature materials and radioactive substances. Prof. Scarlat's proactive engagement in standards development with organizations such as the American Nuclear Society and ASME further highlights her commitment to advancing safety in nuclear operations.

I am confident that Prof. Scarlat will provide the Committee with rigorous, insightful, and independent oversight, effectively supporting its mission of safeguarding public health and environmental safety related to Diablo Canyon's operations.

Thank you for considering this recommendation. Please feel free to reach out if further information is needed.

Sincerely,

less c. Seli

Jess C. Gehin, PhD, Associate Laboratory Director Nuclear Science & Technology Directorate

JCG:AMC

P.O. BOX 1625 • 2525 NORTH FREMONT • IDAHO FALLS, IDAHO 83415 • 208-526-0111 • WWW.INL.GOV

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[EXTERNAL] Support for Professor Scarlat Raluca

From Ron Gester <gester.ron@gmail.com> Date Mon 3/24/2025 9:53 PM To Zizmor, David <David.Zizmor@cpuc.ca.gov>

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Dear Mr. Zizmor,

I am writing this letter in my capacity as a California resident retired from careers in geophysics and emergency medicine. Since retirement, I have been active with nonprofit organizations promoting nuclear energy as an essential technology in our efforts to reduce the impacts of climate change. As a lifelong member of several environmental groups including the Sierra Club, I have taken on the challenge of bringing balance to society's knowledge and concerns about nuclear energy in general and DCNPP in particular.

I am writing in support for Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee. Her voluminous publications attest to her vigor and widespread knowledge of nuclear engineering and materials science. In addition, Prof. Scarlat has a strong interest in the intersection between technology and society. She has been teaching a UC Berkeley course titled "Ethics, Engineering and Society" for the past ten years. Professor Scarlat would bring an uncommon level of insight and skills in facilitating the conversations between the general public, the PUC, and the staff at DCNPP.

Selecting Professor Scarlat to join the Diablo Canyon Independent Safety Committee, would be a wise choice.

Sincerely,

Ron Gester, MD

PO Box 596, Boonville, CA 95415

gest@jps.net

outlook 💁

[EXTERNAL] Dr. Raluca Scalat

From Jenna Goodward <jenna.goodward@gmail.com> Date Thu 3/27/2025 10:58 AM To Zizmor, David <David.Zizmor@cpuc.ca.gov>

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Dear Mr. Zizmor,

I am writing this letter/email in my capacity as a California resident and an energy professional for 18 years. I would like to express my support for Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee; I believe that she has both the technical acumen and leadership skils that would greatly benefit the Committee.

Thank you for considering my feedback. Jenna outlook 💁

[EXTERNAL] In support of Prof Scarlat's application

From Arnaud Grunwald <arnaud.grunwald@gmail.com>

Date Sun 3/23/2025 9:46 PM

To Zizmor, David <David.Zizmor@cpuc.ca.gov>

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Dear Mr. Zizmor, I am writing this email in my capacity as a California resident, and engineer by training and by trade.

l would like to express my support for Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee; having known her for more than 15 years, I'm convinced she will provide a knowledgeable and balanced input on the committee.

Best regards,

Arnaud Grunwald Chief Product Officer, ClearCompany



THE GRAINGER COLLEGE OF ENGINEERING

Department of Nuclear, Plasma, & Radiological Engineering 216 Talbot Laboratory, MC-234 104 S. Wright St. Urbana. IL 61801

March 24, 2025

David Zizmor, Esq. Public Utilities Regulatory Analyst California Public Utilities Commission – Energy Division 505 Van Ness Avenue San Francisco, CA 94102

Dear David Zizmor, Esq.,

In my capacity as a professor at the University of Illinois, I am writing in strong support of Prof. Raluca O. Scarlat's candidacy for appointment to the Diablo Canyon Independent Safety Committee. Prof. Scarlat brings a rare and important combination of rigorous technical expertise, deep practical insight, and a thoughtful, balanced perspective on nuclear safety and public trust. I have known Dr. Scarlat for over a decade. We met when working together as postdoctoral researchers at the University of California Berkeley and I have had the opportunity to work with her and observe her in the years since. In my former role as the Assistant Secretary for Nuclear Energy in the U.S. Department of Energy, I also interacted with Prof. Scarlat when she served as a member of the Nuclear Energy Advisory Committee (NEAC) which advises the nation's nuclear energy research enterprise. On that committee, Prof. Scarlat contributed critically and meaningfully.

Prof. Scarlat is a nationally recognized expert in nuclear reactor safety, corrosion and materials science, and high-temperature reactor chemistry. Her ongoing service on the Nuclear Safety Committee for the McClellan Nuclear Research Center speaks to her commitment to safety and regulatory integrity, as well as her ability to contribute constructively to deliberative bodies. Her experience spans both advanced reactor systems and the existing fleet—a perspective that is urgently needed to ensure the continued safe operation of Diablo Canyon in the years ahead.

What sets Prof. Scarlat apart is her ability to think across disciplines and across sectors. In both her academic and industrial work, she has bridged gaps between engineering, operations, R&D, and policy. Her time in Japan working on post-Fukushima safety modifications, her leadership on corrosion and tritium research, and her experience in petrochemical plant safety all inform a rich and multifaceted understanding of operational realities and risk management.

Just as importantly, Prof. Scarlat approaches her work with a clear sense of civic responsibility. She demonstrated clearly in her service to NEAC that she is committed to supporting the current U.S. nuclear fleet, including Diablo Canyon. She is not only an expert—she is someone who finds value in reading the fine print, in understanding licensing frameworks, and in communicating technical issues with clarity and integrity. Her ability to translate the science of aging infrastructure and materials degradation into language the public can understand would be an asset to the Committee's transparency and outreach goals.

The Diablo Canyon Independent Safety Committee plays a critical role in maintaining public con-

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

217.333.2295 • (f) 217.333.2906 • nuclear@illinois.edu • npre.illinois.edu

ED/Resolution E-5399 DRAFT Diablo Canyon Independent Safety Committee /DZ1

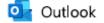
fidence and ensuring independent oversight. Prof. Scarlat's addition would not only fill an existing expertise gap in materials and corrosion science, but also bring energy, professionalism, and a genuinely collaborative spirit.

I recommend her appointment without reservation.

Sincere regards,

Kathungun Huff

Kathryn Huff Associate Professor Nuclear, Plasma, & Radiological Eng. U. Illinois at Urbana-Champaign kdhuff@illinois.edu



[EXTERNAL] Support for Raluca Scarlat

From Kritcher, Annie <kritcher2@llnl.gov> Date Sat 3/22/2025 11:50 AM To Zizmor, David <David.Zizmor@cpuc.ca.gov>

1 attachment (334 KB)

2025.02.24_Invitations for Comments on 2025 DCISC Applicants[11].pdf;

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Dear Mr. Zizmor,

I am writing this letter in my capacity as a California resident and as someone with expertise in nuclear engineering and radiological sciences. I would like to express my full support for Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee. I believe she would provide valuable, knowledgeable, and balanced input to the committee. Sincerely,

Andrea Kritcher



[EXTERNAL] Supporting Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee

From Gert Lanckriet <gert.lanckriet@gmail.com> Date Thu 3/20/2025 7:11 PM To Zizmor, David <David.Zizmor@cpuc.ca.gov>

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Dear Mr. Zizmor,

I am writing this email as a California resident, who has known Prof. Scarlat for over 10 years. I would like to express my support for Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee. She would provide a knowledgeable and balanced input on the committee.

Thanks for your consideration.

best, gert outlook 🚺

[EXTERNAL] Diablo Canyon Independent Safety Committee

 From Marc Olivier Le Blanc <marc@marcolivierleblanc.com>

 Date
 Fri 3/21/2025 9:23 AM

 To
 Zizmor, David <David.Zizmor@cpuc.ca.gov>

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Dear Mr. Zizmor,

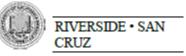
I am writing this email in my capacity as a California resident and concerned citizen. I would like to express my support for Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee; she would provide a knowledgeable and balanced input on the committee.

Merci, Marc

Marc Olivier Le Blanc IG @ marcolivierleblanc +1 415 987 2551 | cell | marcolivierleblanc.com

UNIVERSITY OF CALIFORNIA, BERKELEY

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March 23, 2025

To Whom It May Concern,

Prof. Scarlat's extensive experience in the Department of Nuclear Engineering at the University of Wisconsin at Madison (2014-2019) and her subsequent tenure at the University of California at Berkeley (2018 – present) undeniably make her a highly qualified candidate for membership in the California Public Utilities Commission (CPUC). Her experience has equipped her with a deep understanding of the nuclear engineering and nuclear chemistry fields. She has the necessary skills to contribute effectively to the committee's work, instilling confidence in her potential contributions.

Prof. Scarlat's expertise in nuclear engineering, focusing on materials chemistry and material failure, is unparalleled. Her understanding of the intricate physical, mechanical, and chemical processes that occur within reactor pressure vessels when exposed to high-energy (> 1 MeV) neutron radiation, leading to the embrittlement of the steel, is a unique perspective that would greatly benefit the CPUC.

Her current research emphasizes Generation IV molten salt reactors using eutectic mixtures of fluoride salts, such as FLIBE (LiF-BeF₃) and FLINAK (LIF-NaF-KF), as the heat transport medium. This has led Prof. Scarlat to explore deeply the interaction of these fluoride salt mixtures with carbon (graphite), which is used as a neutron moderator, and with the structural steels of the heat transport circuit. Thus, she would bring to the DCISC a materials chemistry perspective that is sorely needed on the committee. For example, the primary coolant in a Gen. II or III PWR is a Boric Acid [B(OH)₃]-Lithium Hydroxide (LiOH) aqueous-based system containing 1000-2000 ppm of B and 1 ppm of Li at start-up. Li is "bred" from the boron during fuel burnup via the reaction ${}^{10}B_5 + {}^{1}n_0 = {}^{7}Li_3 + {}^{4}He_2$, but the lithium concentration greatly affects the pH. Thus, lithium concentration is controlled by ion exchange to control the pH. The close control of the chemistry of the coolant has been shown to prevent the cracking of internal components, such as core barrels, cold-worked stainless steel barrel bolts, primary-side cracking of steam generator tubes, and a host of other problems.

I bring this up because several years ago; I teamed with Prof. Walter Bogaerts and his student Kristol Dockx) of the University of Leuven on the analysis of hydrogen flakes in the RPVs of the Doel 3 and the Tihange 2 PWRs in Belgium. UT examination showed thousands of indications in the upper and lower shell plates that were many cm long in some cases. Electrobel (the plant operator) shut the two reactors down and examined the probable cause by making additional UT measurements. FANC (the Belgian "NRC") attributed the cracks to hydrogen uptake via the decomposition of water in a moist atmosphere during the hot forming of the steel (Fe + $H_2O = FeO + 2H_{abs}$), where the hydrogen is absorbed into the steel. As the steel cools, the absorbed atomic hydrogen recombines in voids, typically at MnS inclusions that are elongated in the rolling direction of the plate $(2H_{abs} \rightarrow H_2)$ to generate a pressure that is added to the preexisting mechanical stresses (e.g., residual and operational) to increase the stress intensity factor at the periphery of the void significantly. If the stress intensity factor exceeds the fracture toughness of the steel, unstable crack growth may occur, leading to vessel failure under Pressurized Thermal Schock (PTS) conditions following a LOCA. While we agreed with FANC on the origin of the indications, our interpretation of the UT examinations convinced us that the number, density, and size of the indications were increasing with time, meaning that active cracks were present in the RPVs. Electrobel and FANC rejected our interpretation of the data because "there was no other source of hydrogen in the system"! The possibility of the existence of active cracks being present in the

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RPVs never made it into the final report that was issued by ELECTROBEL because it contradicted the official narrative of FANC and ELECROBEL. Apparently, they did not recognize the coolant was a hydrogen-based medium (water, H₂O) separated from the low alloy RPV steel by 7 mm of stainless steel! This remarkable statement was made because it clearly showed the lack of any chemistry or electrochemistry expertise. The reactors were eventually shut down because Belgium decided to get out of the nuclear power business just as the supply of Russian natural gas was shut off. It seems that FANC and the Belgian parliament also lack economic expertise!

In 2007, Dr. Scarlat joined the University of California Berkeley for graduate studies in nuclear engineering to study the safety analysis of large complex systems and understand the role nuclear energy can play in energy portfolios. For her work as a teaching assistant in thermodynamics, she was recognized with the Outstanding Graduate Student Instructor in 2008. In 2009, Scarlat completed an M.S. in the Nuclear Engineering Department. She received a Certificate in Management of Technology from the Haas School of Business and was awarded an Excellence Award in Nuclear Energy Fuel Cycle R&D from the US Department of Energy in 2009, and a three-year Graduate Fellowship from Nuclear Engineering University Programs (NEUP) of the US Department of Energy. In the fall of 2011, after the Fukushima Dai-Ichi Nuclear Power Plant accident, Scarlat joined Hitachi GE in Ibaraki Prefecture, Japan, for an engineering internship to study severe accident progression at Fukushima Dai-Ichi Units 1 and 2 to make recommendations for improving severe accident management at the boiling water reactors. (BWRs) in Japan. In 2012, she completed her Ph.D. in Nuclear Engineering with Designated Emphasis in Energy Science and Technology. She continued research on advanced reactor licensing at UC Berkeley until 2014, when she joined as faculty at the University of Wisconsin Madison in the field of thermal-hydraulics and reactor safety.

Prof. Scarlat has co-authored 42 journal publications, 37 refereed conference proceedings, and a book chapter. Prof. Scarlat was awarded the American Nuclear Society (ANS) Mary Jane Oestmann Professional Women's Achievement Award in 2021. She has served as a working group member for the Development of ANS 20.2 Standard, "Nuclear Safety Design Criteria and Functional Performance Requirements for Liquid-Fuel Molten Salt Reactor Nuclear Power Plants.," and on the American Society of Mechanical Engineers (ASME) standards task group on graphite issues for Molten Salt Reactors (MSRs). Prof. Scarlat serves on the Nuclear Energy Advisory Committee (NEAC) for the US Department of Energy, Office of Nuclear Energy. She serves on the Nuclear Safety Committee and the Advisory Committee for UC Davis' McClellan Nuclear Research Reactors in Sacramento, CA.

I included the above incident in Belgium because I believe that the DCISC should display technical diversity by recognizing that nuclear technology is multifaceted and covers many disciplines, including nuclear physics, nucleonics, mechanical engineering, chemical and electrochemical science, and engineering, to name but a few of the more prominent disciplines. Prof. Scarlat would provide the CPUC with much-needed diversity with her background and skills in materials chemistry and electrochemistry.

Please do not hesitate to contact me if you need any additional input. Sincerely Yours,

Alladouald

Professor Digby D. Macdonald, FRSNZ, FRSC, FNACE, FECS, FISE, FWIF, FASM, FIC, 1991 Carl Wagner Memorial Award (ECS), 1992 Willis Rodney Whitney Award (NACE International), 1993 W.B. Lewis Memorial Lecture (AECL) "for the development of nuclear power in the service of mankind", 2001 H. H. Uhlig Award (ECS), Electrochemical Society, 2003 U. R. Evans Award (UKCI), 2007 Khwarizmi Laureate in Fundamental Science, 2010 Lee Hsun Research Award (CAS), 2011 Doctuer Honoris Causa (INSA-Lyon), 2012 Faraday Memorial Trust Gold Medalist (SAEST), 2013 Gibbs Prize Awardee (IAPWS), 2014 Frumkin Memorial Medalist (ISE), 2012 Nominated for the 2024 Fermi Award for introducing electrochemistry into nuclear engineering, Distinguished Professor Emeritus, Department of Materials Science and Engineering, Pennsylvania State University. Professor in Residence (Ret.), Departments of Materials Science and Engineering and Nuclear Engineering, University of California at Berkeley, Berkeley, CA 94720.

💁 Outlook

[EXTERNAL] Letter of support for Prof. Raluca Scarlat

From Monreal, Marisa Jennifer <mmonreal@lanl.gov>

Date Mon 3/24/2025 3:17 PM

To Zizmor, David <David.Zizmor@cpuc.ca.gov>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Zizmor,

I am writing to express my support for Prof. Raluca Scarlat's application for the Diablo Canyon Independent Safety Committee. I met Prof. Scarlat in 2018, and we have interacted professionally in multiple ways ever since, due to our common scientific research interests in nuclear energy, specifically in molten salt reactors. Based on my experience working with her, I know she would provide a knowledgeable and balanced input on the committee.

Best, Marisa

Marisa Monreal, Ph.D. Research Scientist Inorganic, Isotope, and Actinide Chemistry (C-IIAC) Chemistry Division Los Alamos National Laboratory Idaho National Laboratory

Date: March 24, 2025

To: Diablo Canyon Independent Safety Committee From: Dr. Monica C. Regalbuto, INL and American Nuclear Society Fellow Subject: Letter of Support for Prof. Scarlat for Committee Member

Dear Mr. Zizmor,

It is my distinct privilege to support the application of Prof. Scarlat for the Diablo Canyon Independent Safety Committee, given her nuclear safety leadership and technical impact. Her expertise in reactor thermal-hydraulics, materials, and chemistry makes her an ideal candidate for the committee.

I have had the opportunity to work closely with Prof. Scarlat during my tenure as director of the Integrated Fuel Cycle Initiative at Idaho National Laboratory (INL) and earlier in my career at the Department of Energy (DOE). I have consistently witnessed her exceptional technical and leadership capabilities. As assistant secretary at DOE's Office of Environmental Management, I managed environmental cleanup from weapons production and special nuclear materials for DOE, including overseeing operations and strategic direction for Savannah River National Laboratory. I also served as the DOE's Office of Nuclear Energy Fuel Cycle Technologies deputy assistant secretary and as a research scientist at Argonne National Laboratory. My leadership experience has enabled me to recognize outstanding technical contributions in support of the advancement and implementation of nuclear technologies. Prof. Scarlat's unique qualifications are rarely seen in the scientific and technical community.

Prof. Scarlat's ability to effectively operate at the intersection of nuclear technology and safety has earned her recognition as one of the most influential spokespersons for nuclear technology within the nuclear community. Throughout our professional interactions, I have consistently observed her exceptional technical and leadership capabilities. Allow me to highlight a few examples from her extensive safety skills in chemical and nuclear engineering:

- At ExxonMobil, she developed and deployed abnormal event detection applications for petrochemical plants in 2006.
- Following the Fukushima Dai-Ichi Nuclear Power Plant accident in 2011, she conducted an engineering internship at Hitachi GE in Japan, focusing on severe accident management for boiling water reactors (BWRs).
- She served as an assistant professor at the University of Wisconsin Madison from 2014 to 2018, specializing in thermal-hydraulics and reactor safety.
- At UC Berkeley, her exceptional contributions to electrochemistry and physical chemistry of molten salts have been recognized and used to support the safe design of advanced reactors, including startups such as Kairos Power, TerraPower, and Moltex.

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Prof. Scarlat March 24, 2025 Page 2

What distinguishes Prof. Scarlat from her peers is her dual focus on the science and technology required for the economic and safe development of reactors, as well as the sustainability of the technology for energy production. Dr. Scarlat is a pioneer in this area, with a deep understanding of the crucial sociotechnical aspects of nuclear energy, which are vital for utilizing nuclear energy as a solution to climate change. While many can conduct scientific research and develop technical solutions, few address the critical interaction between people and technology. With her unique qualifications and approach, I strongly believe that Prof. Scarlat would provide knowledgeable and balanced input to the committee.

I highly recommend Prof. Scarlat for this position. For any questions or further details about her career excellence and qualifications, please contact me.

Sincerely, Monger C. Rugel hot

Dr. Monica C. Regalbuto, ANS and INL Fellow Director, Nuclear Fuel Cycle Strategy, Idaho National Laboratory 💁 Outlook

[EXTERNAL] Endorsement for Dr. Raluca Scarlat's Appointment to the Diablo Canyon Independent Safety Committee

 From Anne-Marie Riitsaar <amriitsaar@gmail.com>

 Date
 Fri 3/21/2025 11:26 PM

 To
 Zizmor, David <David.Zizmor@cpuc.ca.gov>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Zizmor,

I am writing in my capacity as a California resident and nuclear professional to express my strong support for the appointment of Dr. Raluca Scarlat to the Diablo Canyon Independent Safety Committee.

Dr. Scarlat's distinguished academic career and extensive expertise in nuclear reactor safety, thermalhydraulics, materials science, and corrosion uniquely position her to provide informed, balanced, and forward-looking insight to the committee. Her leadership as an Associate Professor in the Nuclear Engineering Department at UC Berkeley, combined with her role at Lawrence Berkeley National Laboratory, reflects her commitment to scientific rigor and practical safety applications.

She has contributed meaningfully to national and international nuclear safety standards, including her involvement in the development of ANS 20.2 standards and service on the Nuclear Energy Advisory Committee for the U.S. Department of Energy. Dr. Scarlat's direct experience with reactor safety, emergency preparedness, and post-Fukushima accident analysis underscores her deep understanding of complex safety systems and human factors considerations.

Moreover, her leadership of the SALT research group at UC Berkeley, training the next generation of engineers in high-temperature materials handling, environmental monitoring, and advanced reactor technologies, is a testament to her dedication to both technical excellence and safety culture.

I am confident that Dr. Scarlat's technical depth, combined with her ability to integrate ethics, regulatory knowledge, and operational understanding, would make her a tremendous asset to the Diablo Canyon Independent Safety Committee. I wholeheartedly recommend her appointment.

Thank you for considering this endorsement.

Sincerely, Anne-Marie Riitsaar International Security Analyst (Nuclear Nonproliferation | Arms Control) at Lawrence Livermore National Laboratory <u>https://www.linkedin.com/in/anne-marie-riitsaar-ab4b77a8/</u> San Francisco, California



[EXTERNAL] Letter of Recommendation for Dr. Raluca Scarlat for appointment to the Diablo Canyon Independent Safety Committee

From rushtonje@comcast.net <rushtonje@comcast.net> Date Mon 3/24/2025 6:53 PM To Zizmor, David <David.Zizmor@cpuc.ca.gov>

Cc rushtonje@comcast.net <rushtonje@comcast.net>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To: David Zizmor, California Public Utilities Commission

I am writing to highly recommend Dr. Raluca Scarlat for the open seat on the Diablo Canyon Independent Safety Committee. I first met Dr. Scarlat as a Ph.D. candidate at the University of California, Berkeley in 2010 when she was leading a team of nuclear engineering students on a Department of Energy-sponsored Integrated Research Project in concert with the Massachusetts Institute of Technology, the University of Wisconsin, and the Oak Ridge National Laboratory. At that time, I was the Director of the Nuclear Science and Technology Division at Oak Ridge National Laboratory and was a member of a Senior Advisory Board for the project. Since the completion of that project, I have witnessed the remarkable career of Dr. Scarlet from her earning a PhD at Berkeley in 2012, her acceptance of an Assistant Professorship at the University of Wisconsin in Thermal Hydraulics and Nuclear Safety, her development of the United States' leading Molten Salt Chemistry Laboratory at Wisconsin, and her subsequent return to UCB as an Associate Professor and her establishment of a world-class nuclear materials and molten salt laboratory at that prestigious university.

Dr. Scarlat has impressed me and many others in the nuclear field with her depth of knowledge in nuclear safety, nuclear materials, and light water reactor and advanced reactor chemistry and their application to nuclear and advanced energy systems. She has a mature combination of natural leadership, sound judgement and a people-centered approach. She would offer judicious advice and precise attention to nuclear safety to the Independent Safety Committee. In my view, her knowledge and approach would enhance the Committee's credibility with the public. Importantly, she would bring a fresh, state-of the-art perspective on nuclear science and safety to the Committee.

I have worked with hundreds of nuclear professionals in my forty-year career in nuclear reactors, nuclear fuel cycles, and radioisotope development. Dr. Scarlat is definitely in the very top tier of professionals based on her technical contributions to date and her demonstrated capability to master increasing levels of leadership and responsibility in her career. I strongly endorse her for the Diablo Canyon Independent Safety Committee.

Sincerely. James E. Rushton, Ph.D. Independent Consultant in Nuclear Energy and Fuel Cycles Oak Ridge National Laboratory (retired) Oak Ridge, TN 37830 💁 Outlook

[EXTERNAL] Support Letter for Prof. Raluca Scarlat - Diablo Canyon Independent Safety Committee

 From Aishwarya Saxena <aishwarya.saxena.in@gmail.com>

 Date Sat 3/22/2025 3:15 AM

 To Zizmor, David <David.Zizmor@cpuc.ca.gov>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Zizmor,

I am writing this letter/email in my capacity as a California resident and International Nuclear Law expert (I am an attorney in India awaiting admittance to CA Bar having passed the bar exam and undergoing moral character application). I would like to express my support for Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee; she would provide a knowledgeable and balanced input on the committee. I have had the pleasure of working with Prof. Scarlat since 2021 when she joined my doctoral thesis committee. My research was focused on the role of law in ensuring safe development of nuclear energy in emerging economies of Southeast Asia and sub-Saharan Africa.

Prof. Scarlat's advice was vital in my cross-disciplinary research which tried to integrate technical safety considerations into analysis of how laws apply to maintaining safety of nuclear facilities. After I graduated from my Doctor of Juridical Sciences (JSD) program from UC, Berkeley I continued my nuclear law research with Prof. Scarlat. Our most recent collaboration includes an analysis of nuclear liability and its effect on nuclear energy investment and understanding the impact of nuclear industry on tribal populations, as well as an exploration of pathways to integrate traditional knowledge of plant systems to nuclear engineering practices on tribal lands. Apart from Prof. Scarlat's technical expertise, my research has really benefited from her unique insights about the practicalities of safe operation of nuclear facilities and the importance of understanding the impact of nuclear power generation activities on varied stakeholders.

I believe that her participation in the committee can have several benefits given her unique way of thinking about how nuclear engineering practices can evolve to enhance safety and her knowledge of the interaction between technical concepts and policy.

Please feel free to reach out with any further questions!

Best regards, Aishwarya

Dr. Aishwarya Saxena, Visiting Scholar Nuclear Engineering University of California, Berkeley Mobile: <u>+1 (510) 6467679</u>



[EXTERNAL] Recommending R. Scarlat for Diablo Canyon Independent Safety Committee

From Alex Scialom <alexandre.scialom@gmail.com> Date Fri 3/21/2025 3:35 PM To Zizmor, David <David.Zizmor@cpuc.ca.gov>

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Dear Mr. Zizmor,

l am writing this letter/email in my capacity as a California resident and someone having known Raluca Scarlat for nearly 15 years.

I would like to express my support for Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee; she would provide a knowledgeable and balanced input on the committee.

Sincerly, Alex Scialom 💁 Outlook

[EXTERNAL] Letter of Support for Prof. Raluca Scarlat to Join the Diablo Canyon Independent Safety Committee

From Michael Short <hereiam@mit.edu> Date Mon 3/24/2025 1:59 AM To Zizmor, David <David.Zizmor@cpuc.ca.gov>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Zizmor,

I am writing this letter/email in my capacity as a colleague of Prof. Raluca Scarlat of UC Berkeley, and from the point of view of someone well-versed in the field of nuclear materials, corrosion, and environmental degradation for the past 23 years. I wish to express my strongest support for Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee. She would provide a knowledgeable and balanced input on the committee. In particular, her combination of expertise in the field of material degradation (she is one of the scientists in the field whom I respect the most) and her long history of public outreach and education make her, in my opinion, an ideal public-facing member of the safety committee.

If you would like to know any more specifics about why I believe Raluca's candidacy to be so strong, ranging from her research contributions to her outreach activities to her ability to cut through the fluff and call out issues as they arise, please feel free to email me any time. I can also speak by phone if you'd prefer.

Sincerely, -Mike

Snet form my iPhone, sorrry for teh typos.



[EXTERNAL] Public comment on Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee

From Jason Swierk <jason.swierk@gmail.com> Date Sun 3/23/2025 9:22 PM To Zizmor, David <David.Zizmor@cpuc.ca.gov>

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Dear Mr. Zizmor,

I am writing this email in my capacity as a California resident, a UC Berkeley engineering alum and a neighbor/friend of Professor Scarlat.

I would like to express my support for Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee.

As a California native and resident, I am clearly opposed to the continued use of fossil fuels, and am strongly supportive of all low-carbon electricity sources, nuclear included.

As a Berkeley engineering alum, I stand behind my alma mater's choice of Professor Scarlat as part of their Nuclear Engineering faculty.

And as a neighbor/friend of Dr Scarlat, I can attest to many conversations – below an expert level, but above a layman's understanding – that reflect Professor Scarlat's commitment to safety and knowledge. I also feel that it may be valuable to have a more current academic representation on the Safety Committee. The fact that Professor Scarlat has also spent considerable time studying the Fukushima Incident makes me even more confident in her ability to provide valuable insight in this role.

I also feel she would be more than willing to donate 16 gallons of blood, though maybe not in one go.

In conclusion, primarily based on her record, Dr Scarlat would clearly be an excellent representative on the Diablo Canyon Independent Safety Committee.

Thank you for your time.

Jason Swierk



[EXTERNAL] In support of Prof Scarlat application for safety committee

From Jean Toilliez <jeantoilliez@gmail.com> Date Sat 3/22/2025 12:21 PM To Zizmor, David <David.Zizmor@cpuc.ca.gov>

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Dear Mr. Zizmor:

I am writing this email in my capacity as a California resident and licensed Civil Engineer (C-74999).

I have known Prof Scarlat for over a decade and can attest of her expertise, knowledge, and incredible work ethics.

Therefore, I would like to express my support for Prof. Scarlat's application for the Diablo Canyon Independent Safety Committee; she would provide a knowledgeable and balanced input on the committee.

Best regards Jean O Toilliez, PhD Berkeley, CA

END OF APPENDIX B