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| 1. **Employee Information** | | | | |
| **Employee’s Name:** | Genevieve Saur | | **Employee ID #:** | 11841 |
| **Review Period:** | October 1, 2023-September 30, 2024 | | **Organization #:** | 5400 |
| 1. **Annual Evaluation Results:** Document performance including both results and behaviors. | | | | |
| *Current fiscal year major objectives agreed upon with line manager* | | *Current fiscal year accomplishments* | | |
| * Develop initial online portal for hycred.nrel.gov and start collecting data for HyCReD from at least 2 industry collaborators. | | Funded Proposals   * FOA 3213   + Hyperfuel, Plug Power (lead), UMD, WSU, NREL(PI:Saur)   + Next Generation Multi-Use Heavy-Duty High-Flow Direct-Fill H2, First Element lead, First Element (lead), NREL (PI: Taichi Kuroki, Saur support)   Unfunded proposal   * RIDOT - NREL lead: Monterey Gardiner, Saur support | | |
| * Write joint NREL-TNO paper on current status of offshore wind-hydrogen and what are the next steps for de-risking and demonstrating the technology. | | Business Development   * NDAs (7 total)   + Four: 3 way NREL-UMD-{Toyota, Everfuel,Plug Power,HTEC}   + Two: 2 way NREL-{Swagelock, Parker,UMD} * Other BD development (Likely only)   + Parker (NDA signed)   + Emerson * MOU support- not all executed (yet)   + KIER, AIST, Kyushu/NEDO, CSIRO | | |
| * Provide project leadership on development of a machine learning model for electrolyzer degradation that can be used for evaluating large-scale electrolysis deployments. | | Committee Participation   * Attended by invitation. HFTO Workshop: Hydrogen Infrastructure Strategies to Enable Deployment in High-Impact Sectors, January 17 – 18, 2024 * Breakout moderator: Medium- and Heavy-Duty Vehicle Decarbonization Action Plan Stakeholder Workshop, February 13, 2024 * Workshop attendance by invitation: Hydrogen Infrastructure Priorities to Enable Deployment in High-Impact Sectors, February 27-28, 2024. * Track chair for ASME HYRRAC 2025 conference, now cancelled. | | |
| * Have lunch with other NREL people at least bi-weekly to foster informal collaboration and combat isolation. | | Mentorship Accomplishments   * Supported Johns Hopkins Medicine Initiative serving at-risk scholars as part of their speaker series A Day in the Life of a Specialist with a presentation *Talk with a Hydrogen Engineer*. The initiative has five programs for different education levels, 5th grade to post-bacclaureate and has served 635 scholars in the Baltimore area to date. * Provided mentorship for graduate fellow, Sami Wismer, from University of Maryland * Providing mentorship (co-host) for graduate fellow, Guilia Collina, from NTNU * Provided assistance to a NREL FACES program applicant. Not awarded. | | |
|  | | Technical/research Accomplishments   * Hydrogen Component Reliability Database beginning to have data that is being used as feedback to component manufacturers and station operators. Deeper dive on valves and fitting providing insights into issues to be addressed. * Implemented and collected high-frequency data (80-ms) of dynamic PEM electrolyzer operation to 1) expand NREL testing capabilities and 2) provide new insight into tightly coupled integrated systems. * Co-initiated an Interagency Climate Ambition Program Support (I-CAPS) Project with Brazil’s Ministry of Mines and Energy (EPE) to support integrating their 3-year hydrogen plan into their long term energy planning. The result of the first part year of the project was to provide briefing materials for Secretary Granholm and the US delegation for bi-lateral talks with Brazil at Foz du Iguazu for U.S.-Brazil Energy Forum (USBEF) ahead of Clean Energy Ministerial Meetings in Brazil Sept 30-Oct 2, 2024.   + https://www.energy.gov/articles/united-states-and-brazil-expand-clean-energy-cooperation | | |
| *Other major accomplishments:*  Publications (include submitted as well):   * Groth, K., Al-Douri, A., West, M., Hartmann, K., Saur, G., & Buttner, W. (2024). Design and Requirements of a Hydrogen Component Reliability Database (HyCReD). *International Journal of Hydrogen Energy*, *51*(Part D), 1023-1037. <https://doi.org/10.1016/j.ijhydene.2023.07.165> * Gardiner, M. Saur, G., Hurst, K., Buttner, W. Peaslee, D., Onorato, S. Infrastructure, Safety, Fueling Station, HD Trucking. *FCHEA Hydrogen & Fuel Cell Seminar.* Long Beach, CA. Jan 14-16, 2025. (Submitted abstract) * Saur, G. Robinson, O., Al-Douri, A., Groth, K.,Hartmann, K.,Buttner, W., Ruiz, A. (2024) Insights into hydrogen component failures from initial industry data in the Hydrogen Component Reliability Database (HyCReD). *ASME 2025 Hydrogen Risk and Reliability Analysis Conference (HyRRAC2025)*. Submitted, conference cancelled, looking for alternatives. * Robinson, O., Saur, G., Al-Douri, A., Groth, K.,Hartmann, K.,Buttner, W., Ruiz, A. (2024) Facilitating Data Collection of Maintenance Events to Populate the Hydrogen Component Reliability Database (HyCReD). *ASME 2025 Hydrogen Risk and Reliability Analysis Conference (HyRRAC2025)*. Submitted, conference cancelled, looking for alternatives.   Talks   * Saur, G., & Nagasawa, K. (2024). Offshore Wind to Hydrogen - Modeling, Analysis, Testing and International Collaboration Work. <https://www.nrel.gov/docs/fy24osti/89549.pdf> * Saur, G., Hartmann, K., Al-Douri, A., Robinson, O., Buttner, W., & Groth, K. (2024). Component Failure R&D. <https://www.nrel.gov/docs/fy24osti/89544.pdf> * Saur, G., Hartmann, K., Groth, K., Buttner, W., Al-Douri, A., & Robinson, O. (2024). Hydrogen Component Reliability Database (HyCReD). <https://www.nrel.gov/docs/fy24osti/89542.pdf> * Saur, G. (2024) NREL Database on Fuel Quality. *ISO ASTM Meeting and Workshop.* National Renewable Energy Laboratory, Golden, CO. February 8, 2024. * Buttner, W., Watson, C., Saur, G., Groth, K., Al-Douri, A., & Robinson, O. (2024). Increasing Reliability and Safety of Hydrogen Components - Reliability Data Collection. https://doi.org/10.2172/2337666 * Saur, G. (2024) O&M Challenges for Hydrogen. *Prognostics and Health Management for Renewables Workshop.* National Renewable Energy Laboratory. May 21-22, 2024. * Saur, G. (2024) Talk with a hydrogen engineer. *Johns Hopkins Medicine Lunch and Learn: A Day in the Life of a Specialist.* Virtual. July 24, 2024. * Saur, G. (2023) Hydrogen Component Reliability Database. H2 Joint Tech Team Meeting. Virtual. November 9, 2023. * Saur, G. (2023) Station Data Collection and Reliability Analysis at NREL. Kyushu University/JRMA Site Visit. National Renewable Energy Laboratory. Golden, CO. December 11, 2023. * Saur, G. NREL’s Hydrogen Component Reliability Program. Hydrogenius Symposium. Kyushu University, Fukuoka, Japan, September 12-13, 2024. | | | | |
| 1. **Line Manager’s Feedback** | | | | |
| Feedback from Manager:   * Genevieve is a pleasure to work with. Genevieve consistently demonstrates technical expertise and leadership qualities in her interactions with colleagues and mentees. She always brings a friendly and amicable attitude in her collaborations. * One area where Genevieve could improve is learning to say “no”. The hydrogen team gets a lot of work requests but not all of it is important to or aligns with our specific research areas. When this happens, in my opinion, it is OK to turn down a project and/or recommend someone else to step in. I think Genevieve sometimes takes on too many responsibilities which can result in her feeling like she is pulled in too many directions and results in less time to focus on specific projects and what’s most important or interesting for her and her career. I think practicing this might enable her to better focus, delegate tasks, and ultimately find more satisfaction in her work.   Comments from Peer Review with suggestions for improvement:   * Genevieve provides the information needed for the project using her professional network. She knows subject matter experts within and outside of NREL, so her knowledge really helps complete the project. * She provides various guidance to me. This is particularly helpful for me to work on this project as well as other projects that I’m working on. * Been instrumental in analyzing all the hydrogen station data even while less focus and some staff leaving the project. Keeps things on track, makes sure meetings are coordinated. Friendly and communicative while keeping DOE/HFTO in the loop. * There may be a need for finding new ways to delegate key parts of data analysis to other staff to free up her time to coordinate project direction/ high level management decisions for project. | | | | |
| 1. **Major Performance Objectives for Next Fiscal Year:** State major objectives for next year. | | | | |
| * HyCReD: Public website development, collect at least data from 2 industry sources and increase HyCReD entries to 150, Implement at least one automated graphic into the online portal framework | | | | |
| * OSW-H2: Submit 1 journal article on the significance of high frequency electrolyzer data on micro-grid integration | | | | |
| * Sign MOU with Kyushu University for closer collaboration on component reliability | | | | |
| * Collaborate with Kevin Hartmann on developing component lifecycle testing at ESIF | | | | |
| 1. **Areas for Growth, Development and Challenge:** List skills, knowledge, or attributes that need to be developed or strengthened. | | | | |
| * Write more, with clarity and purpose. * Identify priority tasks and focus, say no more. * Work on mentoring skills. | | | | |
| 1. **Overall Performance Rating:** | | | | |
| |  |  | | --- | --- | | |  | | --- | | **Successfully meets or exceeds expectations** |   **Enter the overall performance rating:** |  |  |  | | --- | --- | |  | Type “Yes” in the box to the left if a corrective action plan is required. | | | | | |
| **Performance Rating Definitions:** | | | | |
| **Needs improvement** – Employee does not meet the performance and/or behavior expectations, and/or demonstrates only a minimum level of proficiency in the competencies required in their job on a consistent basis. This rating also applied to an employee who may exhibit workplace behaviors which negatively impact the ability to be effective in their role, although goals may be achieved. Additional skill development, commitment, and/or change in behaviors are necessary. This rating describes the employee who may meet only the very minimum position requirements and/or behaviors and change is necessary. The evaluation should detail the changes necessary for improvement to ensure clear expectations are defined.  **Successfully meets or exceeds expectations** – Employee is currently successful in their role and consistently meets and may frequently exceed the high NREL performance expectations commensurate with their position within the laboratory. The expected behaviors include proficiency regarding judgment, interpersonal and communication skills, and other competencies required in their job. This rating describes the employee whose overall performance is successful and above. Any minor areas where performance gaps exist were counterbalanced by overall successful performance and behavior that consistently met or exceeded expectations. The rating can also apply to employees new in their jobs who may be learning or lack experience but, overall, are successful in their role with no significant gaps in performance or behavior.  **Exceptional** – Employee consistently exceeds the majority of performance expectations and goals, and demonstrates judgment and behaviors commensurate with their position within the laboratory. The expected behaviors include a high level of proficiency regarding judgment, interpersonal and communication skills, and other competencies required in their job. | | | | |

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| **Employee and line manager review the following items together and initial upon review.** | | |
| **Initial each item** |  |
| **GS** | **I have reviewed the** [**Commitment to Safety and Environmental Stewardship**](http://thesource.nrel.gov/esh/commitment.html) **and reviewed my ESH training requirements with my line manager.** |
| **GS** | **I have reviewed my required training plan with my line manager and have submitted necessary changes to** [**institutionaltraining@nrel.gov**](mailto:institutionaltraining@nrel.gov)**.** |
| **GS** | **I have discussed** [**NREL’s Ethics Handbook**](https://highpoint.nrel.gov/sites/iop/Documents/gen/fy21/77850.pdf) **with my line manager and understand my responsibilities in these areas.** |
| **GS** | **I have discussed cybersecurity requirements, including personally identifiable information, and physical security requirements, such as visitor access and control issues, with my line manager and understand my responsibilities in these areas.** |

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| 1. **Employee Comments (Optional)** |
| I am trying to grow an area of hydrogen research around field data analysis, component reliability, operational questions. That means exploring opportunities and saying yes to projects to establish relationships and explore how to work more closely with people. I would offer that I should say no sometimes, but I’m also managing $1.5M+ in projects and often finding myself with a lack of support. There is an expectation at my level that I am growing opportunities and bringing in money, not just saying no to what I can’t physically cover with my labor time.. |

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| 1. **Signatures** |

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| **Employee:** | **Genevieve Saur** |  | **Date:** | **12/12/2024** |
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| **Employee’s Line Manager:** | **Mark Chung** |  | **Date:** | **11/11/2024** |

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| **Reviewing Manager:** |  |  | **Date:** | **12/16/2024** |