



Case Study: Intake Operation, Maintenance, and Optimization Interest Group

CLIENT: Electric Power Research Institute (EPRI)

BACKGROUND: EPRI's Operation, Maintenance, and Optimization Interest Group (OMOIG) is a forum through which power generators can share ideas, data, and experience on intake operation and maintenance (O&M) and optimization issues. With the goal being peer-to-peer learning, the group focuses not only on successes, but also on failures in the operation of cooling water intakes. The OMOIG offers operators the opportunity to learn efficiently from their industry peers, EPRI experts, and consultants. Participation is international and members work together to launch collaborative research and development (R&D) projects to address common research needs (e.g., new technology evaluations, screen optimization practices and unresolved intake O&M problems).

CHALLENGE: Operators are consistently faced with intake-related challenges due to deteriorating equipment condition and changing environmental conditions. These challenges can prove costly, as they often lead to derates or shutdowns of generating facilities when intake equipment cannot perform as needed. Generating facility operators must be kept "in the know" about information (e.g., new technologies, interesting research, operating experience [OE]) that could aid in managing intake-related risks.

APPROACH: TWB has been co-managing the OMOIG with EPRI since 2017. The OMOIG shares relevant information with its members in various deliverables over the course of a year.

SOLUTION: The OMOIG delivers the following:

- Annual workshop – TWB works with EPRI to identify the host site/company, solicit and invite speakers, develop the agenda and announcements for the workshop, and co-moderate the workshop.
- Monthly webcasts – TWB organizes and co-hosts monthly webcasts which bring vendors, academics, consultants and other subject matter experts to our members. Topics include debris, biofouling, mitigation technologies, and event forecasting
- Quarterly newsletters – TWB writes four quarterly newsletters a year which contain announcements, summary of recent debris events in the news, recent scientific publications and conferences, and updates on deliverables and webcasts.

- Technical briefs – TWB prepares technical briefs covering topics relative to screen operation and maintenance, optimization, and debris management.
- Develop R&D projects – TWB assists EPRI in opportunistically developing new research and development (R&D) projects that could be valuable to members.
- On-call support – TWB supports EPRI in providing immediate on-call assistance to members experiencing intake-related issues.



Barnacles can be a challenging biofouling organism to manage



2022 Annual Workshop at Tennessee Valley Authority facility