Regulatory and Stakeholder Coordination for Power Plant Retirement

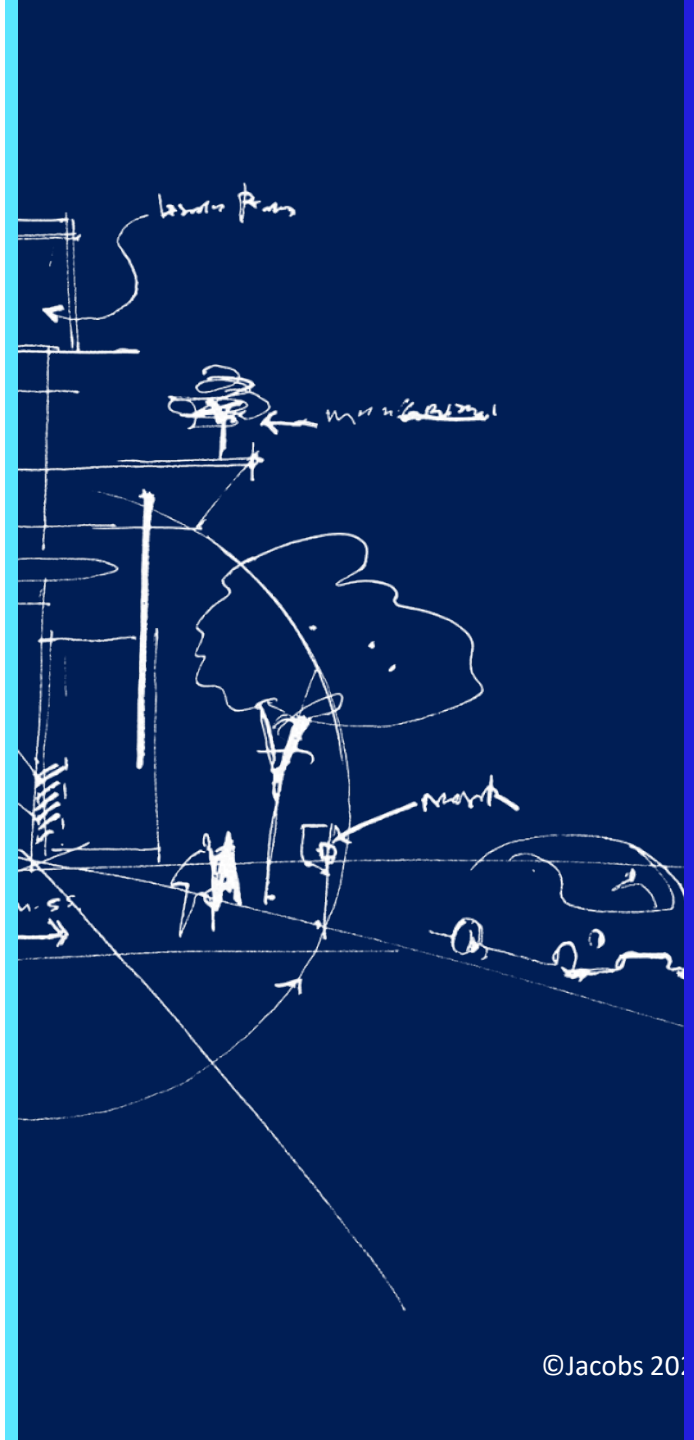
2025 USWAG Decommissioning Workshop

Jacobs

Challenging today.
Reinventing tomorrow.

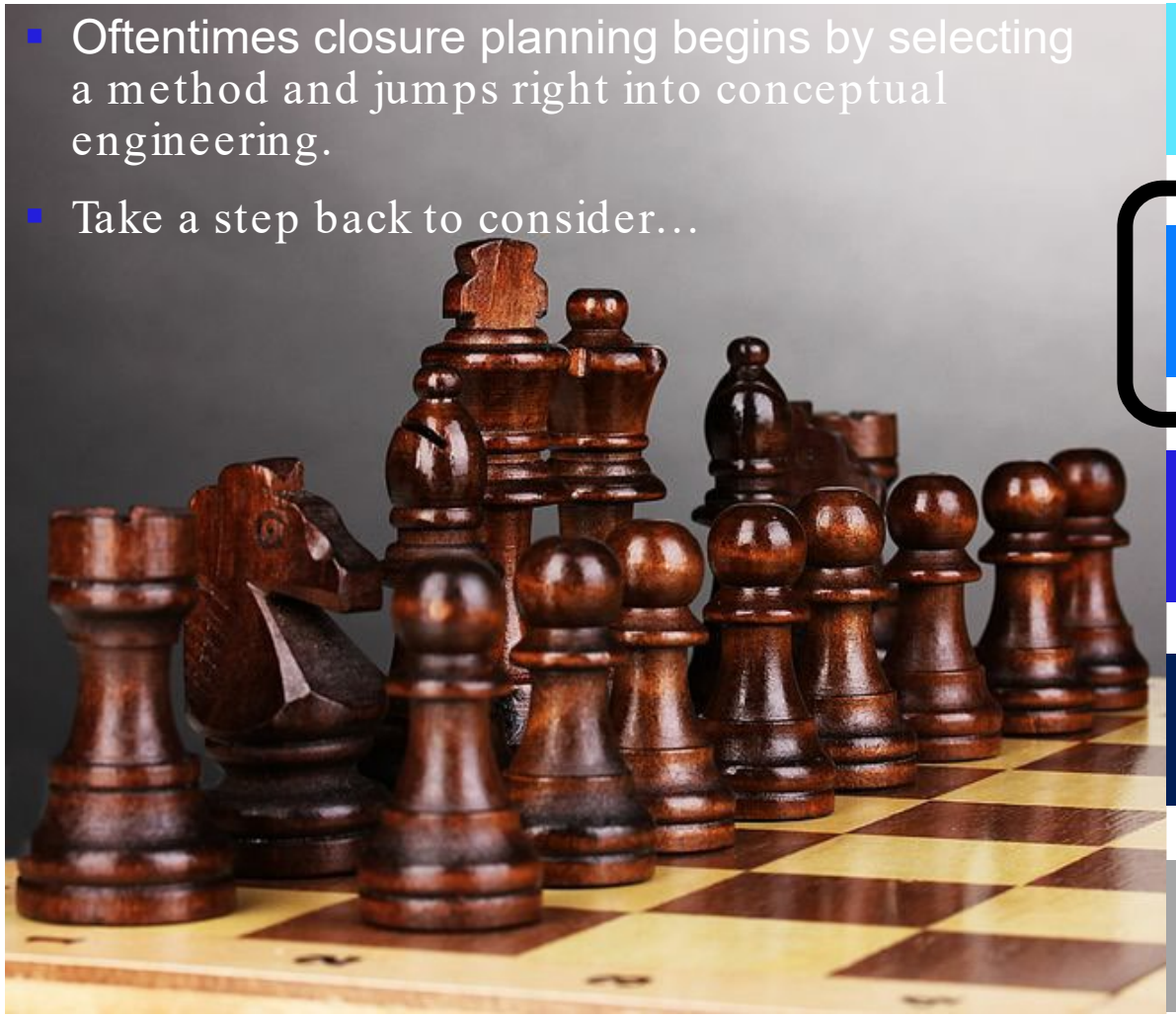
Agenda

- Why Should Regulations and Stakeholders Be Evaluated During Retirement Planning?
- Retirement Considerations
- Typical Power Plant Permits to Consider
- Evaluate More Than "Just" Permits
- Key Questions for Evaluation
- Stakeholder Coordination
- Retirement Road Map
- Case Studies



Closure starts with planning…

- Oftentimes closure planning begins by selecting a method and jumps right into conceptual engineering.
- Take a step back to consider…



Project Lifecycle Phases

1. Initiation
2. Planning
3. Execution
4. Monitoring and Controlling
5. Closing

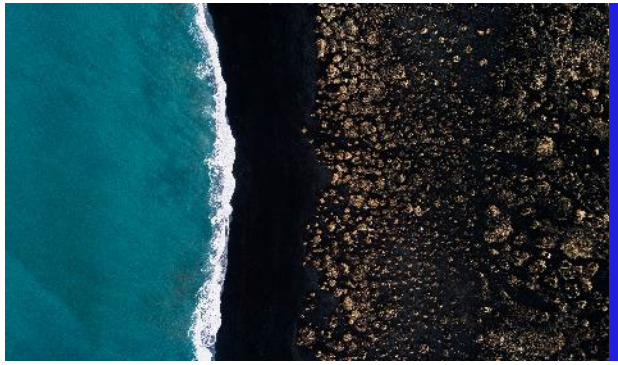
Why Should Regulations and Stakeholders Be Evaluated During Retirement Planning?

Permits do not go away when plants shut down and retire	Existing permits can prove challenging during retirement	Existing permits can create opportunities during and after retirement	Retirement can trigger need for new/additional permits	Future permits & stakeholders overlooked during planning and difficult to address at the last minute
Unexpected aggressive push for retirement from public	Future regulatory climate uncertainties	Existing contracts or agreements or deed restrictions	Not identifying risk/exposure prior to retirement could result in impacts to communities or habitats	Not anticipating stakeholder intervention could result in legal action and fines

Retirement Considerations

1. Plant Operations
   - How does closure affect operations?
   - Can the plant operate if partially retired?... And with what impact?
   - What alternative processes should be considered?
2. Site Redevelopment
   - What permits should Utility keep open for site re-use?
   - What permits should be closed, or left open, for transfer to a new Owner?
3. Permit Needs and Value
   - What permits are needed to close? Which to keep open?
   - Assess benefits and risks of keeping/modifying permits?
   - Evaluate the permit timelines with closure deadlines
4. Stakeholder Engagement
   - Have existing and new stakeholders been identified?
   - Do you have stakeholder buy-in?
   - Are there any interveners?

Typical Regulations and Permits to Consider



Water Permits

- Loss of water rights without intake permits/infrastructure
- Managing retirement waste in on-site ponds
- ELGs, process wastestreams, groundwater, and/or CCR Leachate
- Industrial SW permits versus construction SW permits
- Sediments/dredge removal along shoreline if required?

Air Permits

- New emissions/sources; new access roads or haul roads
- Fugitive dust from demolition activities; dig/hauling, demo, blasting, etc.
- Local attainment status and air emission credits
- Stationary engines (emergency generators, fire pumps, etc.)
- Air Monitoring Sites

Wastestreams

- Managing retirement waste in on-site ponds and landfills
- By-products of remediation and treatment technologies

Typical Regulations and Permits to Consider

Building/Decommissioning Permits

- Fire suppression infrastructure
- Elevators
- Grading and demolition permits can drive price
- Notifications

Hazardous Waste Generating Status

- Emergency Response Requirements
- Remediation and Treatment Systems and Decontamination Schedules
- Groundwater Monitoring Systems
- State Compliance Program

Rights of Way

- Railroad, distribution and transmission line, roads, barges

Compliance Resources

- Personnel, budget, and infrastructure

Evaluate More Than “Just” Permits

- Potential Permissions and approvals– Local, State and Federal
  - NPDES Permits
  - NEPA Requirements
  - USACE Consultations
  - NERC/ FERC Compliance/ Standards
- Notifications/ Notices
  - Building/ fire code compliance
  - Building Demolition (NESHAP)
  - First Responder Coordination
- Waste Management
  - Hazardous waste generation status
  - PCB Registries
  - Landfills, beneficial use, etc.
- Infrastructure needed for compliance (i.e., staffing, utilities, etc.)
- Plans, Agreements, and Contracts
- Rights of Way and access agreements (i.e., floodplains)
- Consent Decrees and Covenants
- Non-permitted environmental compliance
  - CCR Rule Compliance Certifications, Notifications, & Posting
  - Stack Lighting & FFA NOTA

Key Questions for Evaluation

- If you close the permit…
  - Could it be necessary for future retirement activities or site redevelopment?
  - Could you get it back?... When you need it?
  - Are you willing to endure an approval process to get it back?... Especially if it's public?
- If you leave the permit open (or modify)…
  - Does this permit have to remain open?
  - Could it constrain or conflict with retirement activities or future site redevelopment activities?
  - Are you resourced for ongoing compliance?
  - When/ how do you want to close it?
- Do you need to apply for new permits?
  - Would the public intervene?
  - How will this affect future retirement or site redevelopment activities?
- Consider early RFP to evaluate potential redevelopment or environmental liability transfer ideas

Stakeholder Coordination

Local and Tribal

- Immediate surrounding area
- Local economy (jobs!!!)
- Local government
- Emergency services

Partner Utilities

- Cooperatives

State

- Regulators
- Public Service Commissions

Federal

- FERC
- Security/NERC
- USEPA
- USACE

Public Engagement

- Public Notices and Meetings
- Neighbors
- Community
- Educational Outreach

Retirement Roadmap

1 Retire-in-Place

- Can the plant operate if partially retired?... And with what impact?
- Could the plant/unit be required to restart?... How quickly?

2 Plant Operations to Retirement Activities

- How does demolition affect permit compliance?
- Should a contractor assume permits?

2 Site Redevelopment

- What permits should Utility keep open for site re-use?
- What permits should be closed, or left open, for transfer to a new Owner?

Case Studies

Case Study #1: Coal plant in Western US

- Owner self-performed decommissioning and decontamination
  - Kept select plant workforce employed in local area
  - Industrial stormwater permit became site-wide construction stormwater permit
- Contractor performed abatement and demolition
  - Held typical construction permits: dust, stormwater, asbestos
  - Owner's fire and elevator permits critical to work
- Owner retained site after demolition
  - Remediation of environmental liabilities
  - Kept dam permits and ponds to retain water rights for possible Owner site reuse

Case Study #2: Coal plant in Midwest US

- Overview: Owner worked with consultant at the beginning of the decommissioning planning. Ultimately transferred property & liability to a 3rd party developer
  - Minimal select plant workforce were retained- loss of facility knowledge
  - Industrial stormwater permit & Title V air permit utilized for site-wide construction
- Risks and Opportunities
  - Owner did not fully consider future use for continued operation and lost $$$
  - Safety issues created unsafe conditions during demolition resulting in fatalities
- Owner's long-term liability
  - Environmental liabilities could remain the original Owner's liability if 3rd party is not compliant or files bankruptcy
  - Owner could receive negative publicity and reputational damage despite liability transfer agreements

Case Study #3: Coal plant in western US

- Utility -Owner kept plant personnel on-site to oversee retirement activities
  - Kept select plant workforce employed in local area
  - Needed both industrial stormwater permit and new site-wide constr. stormwater permit
- Contractor performed all retirement activities
  - Held typical construction permits: dust, stormwater, asbestos
  - Limited local emergency services
- Plant site was leased, so Utility-Owner handed site back to Land-Owner
  - Hard-date to vacate land; Limited undefined remediation required
  - Land-Owner required select infrastructure preserved for handover
  - Land-Owner wanted to start site re-development before demolition complete

Questions?

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Thank you!