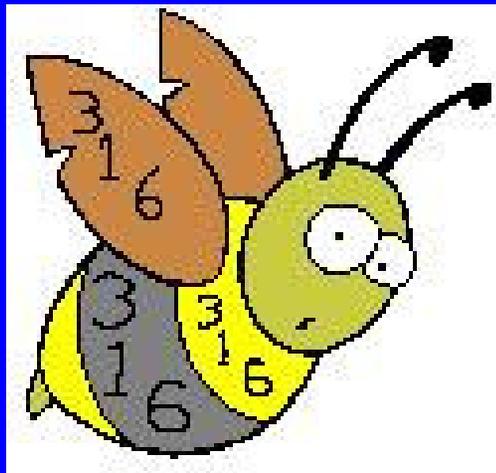


Staff Proposal for Once-Through Cooling Intakes

Statewide Policy to Implement Clean Water Act 316(b) Regs



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- Impacts are “significant” and urges the State Water Board to adopt “more stringent state requirements” (95% I, 90% E)
- Encourages the State Water Board to form a technical review group
- Establishes an Interagency Coordinating Committee
- Six Month Study – Alternative Cooling or installation of BTA

Staff perspective

- Resource considerations
 - fishing without a license
 - waste of a resource
- Discharge considerations
 - standards are designed to protect marine aquatic life from mortality/toxicity
 - fish kills often result in enforcement actions
- higher ends of performance standards are more protective
- but solutions must also be practical/feasible

Statewide Policy for 316b - Amendment to the Thermal Plan or Stand-alone Policy?

After the scoping meeting, staff is now leaning toward a stand alone policy to be incorporated at a later date into an amended Thermal Plan.

June 06 Staff Proposal

Applicability, New vs. Existing

- Existing Power Plant - Any power plant that is not a new Power Plant.
- New Power Plant – a) power plant constructed after January 17, 2002, or b) power plant in operation prior to 1/17/02 but, as of [*effective date of policy*], has undergone or will undergo a major modification, increasing electrical production capacity and increasing intake flow.

June 06 Staff Proposal - Effective Date

- Implement policy when a permit for an existing power plant is first reissued after [*effective date of policy*] or when the permit is reopened, whichever occurs first
- Regional Board discretion

June 06 Staff Proposal - Baseline Determination

- Calculation baseline using actual flow rates calculated as a long term average flow rates
 - enviros favor this approach
 - industry prefers maximum permitted
 - New York allows maximum permitted

June 06 Staff Proposal - Impingement Monitoring

- prior to permit renewal
- all species impinged
- at least one year, different seasons 24-hour sampling periods
- representative operational conditions
- during permit - periodic sampling/reporting

Threatened, Endangered and Protected Species

- recent information (following scoping meeting): from 2001-2005, 294 pinnipeds and sea turtles impinged
- mortality was about 1/2 for that period
- impingement was mostly at two plants - SONGS and Scattergood
- Industry- does not want this addressed in the proposed policy

June 06 Staff Proposal - Entrainment Monitoring

- one year, variability in oceanographic conditions and larval abundance/behavior
- sampling in source water and intake water at the plant
- all ichthyoplankton & invert zooplankton species to the lowest taxa practicable.
- establish AEL, FH, ETM, PM and source water area - and ultimately habitat production foregone

June 06 Staff Proposal - Impingement Performance Standards

- closed cycle system - alternative cooling, or
- reduce through-screen flow ≤ 0.5 fps, or
- reduce mortality by 95 percent from the calculated baseline
 - flow reduction when not generating will help
 - credit for existing controls - e.g., velocity caps, fish returns
- New York requires upper end
- industry suggests review of other states

June 06 Staff Proposal - Entrainment Performance Standards

- closed cycle system - alternative cooling, or
- reduce mortality by 90 % from baseline
- conventional $\geq 15\%$ cap utilization - 60%
by operational and/or structural controls,
e.g. flow reduction when not generating
- nukes - restoration may account for larger
than 30% of mitigation
- New York requires upper end
- industry suggests review of other states

Restoration

- Staff - restoration is a valuable tool
- habitat production foregone
- success in mitigating impacts should be measurable/quantifiable over time
- awaiting decision of the court
- even if the court rules that mitigation is not BTA, it may still be allowed for mitigation above minimum performance standards.

Expert Review Panel

- balanced membership - academic, industry, and environmentalists
- all parties seem to be very supportive of this approach
- staff priority for the remainder of the year - will work to get funding approved by management

Desalination Issues

- Important - potential solution to potable water shortages/droughts
- Desal draws off of the hot side of the systems, and should not increase intake
- More of a discharge issue, note recent NPDES permit issuance for Encina
- Enviros are concerned that desal will perpetuate OTC/intakes