

APPENDIX 6

Recurring Issues Faced by the TMT and Possible Options for Resolution

(Draft 3/25/99)

The TMT guidelines provide general directions on the dispute resolution process but refer to the TMT to develop more specific and more technical decision-making. Over the past few years the TMT has been faced with issues that annually create difficulty for the team. Rather than wait until the issue has arisen as an emergency, the TMT hopes to develop a list of these problematic issues. Additionally, the group plans to develop possible options for resolution that the team will consider in its real-time decision-making process. The team agreed that thoughtful analysis of these issues OUTSIDE of the emergency moment might well lead to more satisfactory resolution and results for managers, fish and the hydro system.

Summarized below are some issues that had been discussed at length, and the criteria used to resolve them at the TMT, IT or EC levels. To ensure consistency and expediency, the TMT will address and attempt to resolve reoccurrence of similar issues using precedence as a guide. The "possible answers" listed below are based on actual resolution of the issues at TMT, IT, or EC.

- QUESTION A: Under what circumstances can stream flows be augmented over and beyond the BiOp seasonal flow objective level? POSSIBLE ANSWER: Normally, when (1) the reservoirs providing the additional flow (Grand Coulee, Libby, Hungry Horse and Dworshak) are still above their respective interim summer reservoir draft limits (elevations 1280, 2439, 3540 and 1520 feet respectively), (2) it can be demonstrated there will be a positive impact on fish travel time and overall survival, and (3) at key points in the migration, while acknowledging that flows may be lower later in the migration.[NMFS]. Note that such an operation is within the project owners and operators' discretionary authority from an overall ecosystem management standpoint.
- QUESTION B: When could a turbine unit operate outside its 1 percent peak efficiency flow range? POSSIBLE ANSWER: (1) when TDG below the project(s) involved is (or is projected to be) at the 130 percent level or higher, (2) it can be demonstrated that such an excursion would decrease TDG by at least 2 percent saturation, and (3) there is agreement that this risk associated with higher spill and higher TDG is less than the risk of direct injury to juvenile passing through the powerhouse. Note that in the past only turbine units at John Day and McNary demonstrated any potential reduction in TDG by operational excursions outside the 1 percent peak efficiency.
- QUESTION C: When should the Lower Snake pools be allowed to be operated outside their respective MOP operating range? POSSIBLE ANSWER: (1) TDG in the lower Snake River must be at least at 120 percent or higher (or projected to be at or exceed that level), (2) the resulting reduction in spill should lead to a TDG reduction in saturation level of at least 2 percent, and (3) operational flexibility exists to allow reservoir drafting back to within the MOP as needed.
- QUESTION D: Under what temperature conditions should fish collection and handling be curtailed or discontinued? POSSIBLE ANSWER: (1) when scroll-case temperatures are approaching 70 degrees F and expected to stay at that level for more than two days, or (2) when fish survival conditions are being affected in collection and handling facilities, or (3) when the station biologists indicate that the condition of the fish is poor and handling stress is worsening their condition, or (4) upon recommendation from the Emergency Team or the Salmon Managers.

- QUESTION E: When is zero or minimum nighttime flow tolerable? POSSIBLE ANSWER: (1) when water temperature is less than 68 degrees F, (2) temperature increase resulting from the operation is projected to be less than 2 degrees F, (3) when the expected daily passage of listed adult fish is less than xxx *[USFW do you have this answer?]* at the project(s) involved, and (4) when the operation is to occur outside of the juvenile migration season *[NMFS suggested removing the months]*, because of delay in fish movement resulting in increased mortality due to predation and/or improper arrival timing at the estuary. *[NMFS: Too liberal. Needs more discussions.]*
- QUESTION F: When is pre-emptive reservoir draft to control high total dissolved gas saturation a reasonable operation? POSSIBLE ANSWER: (1) when TDG are (or are projected to be) at 130 percent or above for an extended period (2 weeks or more) and the expected TDG reduction is no less than 5 percent TDG, and (2) the impact on reservoir refill to provide flow augmentation volume is not expected to be significant (no less than 80 percent refill probability).
- QUESTION G: When is there a potential for flood control shift from Brownlee to Grand Coulee? Describe the operation and the benefit, constraints and alternatives of such an action. POSSIBLE ANSWER: (1) when the initial April-to-July volume forecast prepared on January 1 for Brownlee is 5.8 maf or less, (2) space is available at Grand Coulee to accommodate the storage volume to be transferred from Brownlee, (3) Reclamation accepts the shift --especially if this would include operation of Grand Coulee below elevation 1220.2 feet, (4) the shift is formally recommended by NMFS, and (5) the Action Agencies and Idaho Power agree to implement the NMFS recommendation.

[NMFS: needs more discussion. Operation is defined, but the benefit, constraints and alternatives of such an action are vague].

When the flood control shift is implemented, Brownlee Reservoir is assigned a new, higher flood control rule curve prior to April 30. By the same token, Grand Coulee pool will have to follow a lower flood control rule curve to provide the same storage as that relinquished by Brownlee. That flood control space will be returned to what it would have been otherwise at both Grand Coulee and Brownlee by April 30.