

## **7. Implementation of Observation/Exclusion Zones**

- 7.1. The Draft Guidance provides thresholds for five hearing groups, but it is not clear how these thresholds will be applied when determining safety or exclusion zones. The Implementation Guide should address how this will be practically and flexibly carried out. The Guidance should include recent approaches that give discretion for decisions involving shutdowns for dolphins that are deemed to be in the ensonified area voluntarily.
- 7.2. It is possible that the size of model-established exclusion zones will be larger than that which can be effectively monitored. Where that is the case, the Associations recommend that NMFS employ a practical limit to an area that can be effectively be monitored as it has in LOAs issued to the U.S. Navy.

## **8. Exposure Duration**

- 8.1. Provisions are made for use of either a 1-hour or a 24-hour accumulation period depending upon whether models that calculate animal and/or source movement and exposure are used.
- 8.2. Exposure is a function of both movement of the vessel and movement of animals. In addition, animal movement is both lateral and vertical. The Draft Guidance should clarify and confirm NMFS's consideration of these factors as well as consider the reduction in incidental takes that results from avoidance.
- 8.3. We suggest that NMFS revise the Draft Guidance to expressly allow for the option of  $SEL_{cum}$  modeling for the duration of the activity in addition to the 1-hour and 24-hour options and utilize the approach with the smallest estimated number of estimated potential marine mammal exposures.
- 8.4. Implementation of the acoustic accumulation period should provide a way to consider periods of reduced or no sound propagation for power-downs and line turns (which could allow for recovery) to be more accurate.
- 8.5. Clarification regarding NMFS's approach for use of the  $SEL_{cum}$  metric would be helpful. The agency indicates  $SEL_{cum}$  is not meant to accumulate sound exposure for multiple activities or for naturally occurring sounds; however, no alternative metric is provided for this type of assessment.

## **9. Consideration of Mitigation Factors**

The Draft Guidance notes that a variety of factors, some of which are not explicitly considered in the quantification of incidental takes, are in fact relevant. The Associations agree. In particular, avoidance behavior and the effect of ramp-up, power down, and shutdown in reducing takes are significant. The Implementation Guide should review and consider improvements in how these impact avoidance factors are given equal consideration in the agency's effects analysis. It is very likely that these avoidance factors are especially meaningful in explaining the discrepancy between the numbers of model-predicted incidental takes and actual observations in the field.