

## **Temperature Screening Procedure Concept Adaptations in response to Stakeholder Comments Received on August 20, 2014**

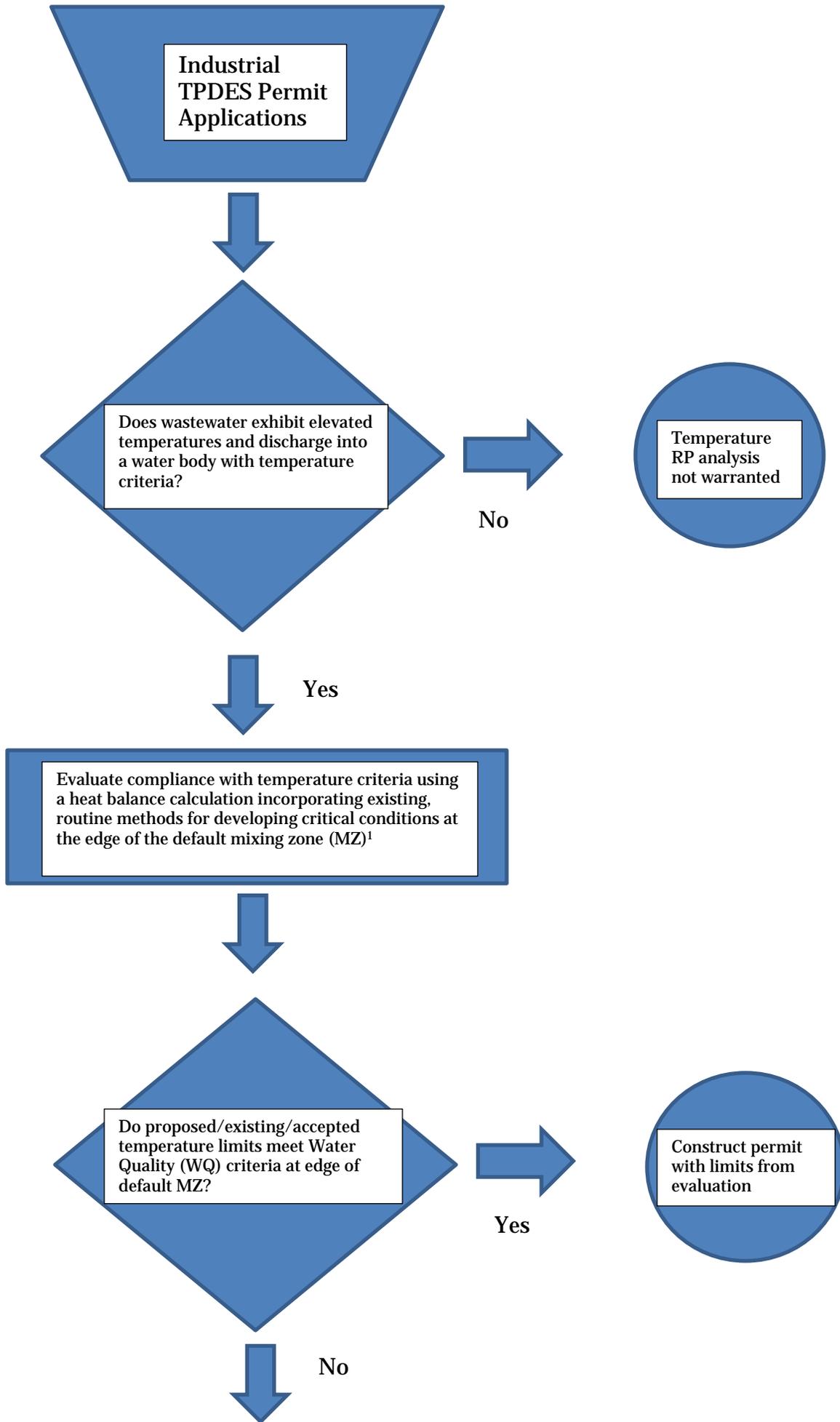
### **Screening Procedure Guiding Principles**

The objective of developing screening procedures for thermal discharges is to ensure that TPDES permitted industrial discharges comply with the Texas Surface Water Quality Standards (TSWQS) criteria. The preferred option for accomplishing this is through a screening procedure that starts with conservative approaches and progresses to more complex and site-specific approaches as necessary. The screening procedure is now outlined within a flowchart that guides the applicant through the decision making and analytical processes that are considered while progressing from simple to complex methodologies. A draft of this concept is presented in the flowchart at the end of this document. Note that special procedures (described in RG-194) may apply to existing/proposed thermal discharges to water bodies listed as impaired on the 303(d) list for elevated temperature.

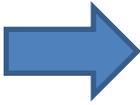
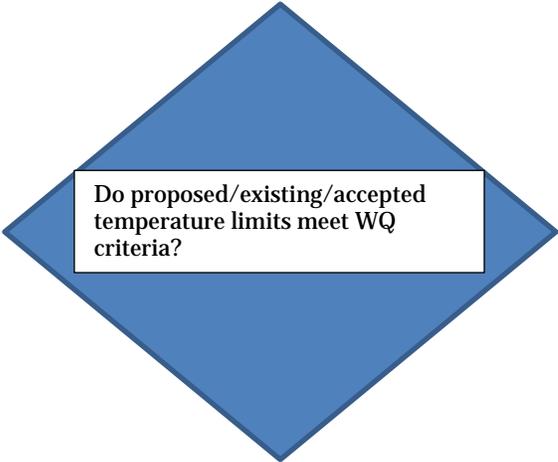
### **Adaptations to Stakeholder Comments**

The refined procedure addresses and incorporates comments received at the Temperature Stakeholder meeting held on August 20, 2014 while maintaining the risk-based approach to temperature screening included in the original proposal. The revised procedure includes the following in response to comments:

- The procedure is now outlined in a flowchart format.
- The dilution thresholds originally included as part of the determination of risk level have been eliminated. The revised proposal now puts all industrial permit applications through the same screening procedure regardless of receiving water body type, and environmental risk is individually accounted for based on site-specific considerations.
- The procedure clarifies the decision making process for determining the level and complexity of the required reasonable potential analysis.
- The procedure is now more consistent with existing WQ Division practices (i.e., reasonable potential analysis) for determining the need for permit limits for other parameters.
- The use of calibrated models is now optional.
- The procedure eliminates the need to exercise a high degree of judgment early in the process when there is limited knowledge of environmental risk. The decreased reliance on the use of staff judgment should also help ensure a high degree of regulatory consistency.
- The procedure addresses a concern expressed that too many types of facilities may avoid or receive minimal scrutiny.



Evaluate compliance with temperature criteria using conservative, uncalibrated, simplified numerical modeling (ex. CORMIX) coupled with a default MZ<sup>3</sup>.

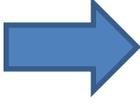
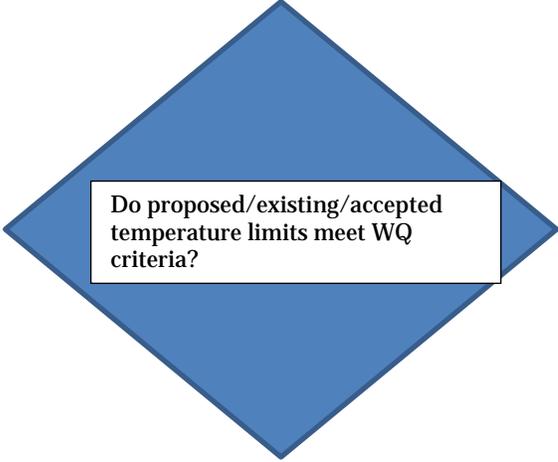


Yes



No

Perform a highly site-specific technical analysis. <sup>2</sup>



Yes



No

Consider performing a 316(a) analysis and/or seek a variance to the WQ Standards if justified

- 1 
$$WLA_t = [T_{crit} - T_{amb}(1 - E_f)] / E_f$$

$WLA_t$  = effluent temp that will not cause temp criterion to be exceeded at the edge of the MZ  
 $E_f$  = effluent fraction at the edge of the mixing zone  
 $T_{crit}$  = temperature criterion  
 $T_{amb}$  = ambient temperature
  
- 2 These analyses may include, but are not limited to, any combination of the following considerations:
  - Site-specific temperature mixing zone or specification of an industrial cooling area in combination with numerical modeling.
  - Installation and analysis of a high rate effluent diffuser.
  - Collection of site-specific temperature data for use in numerical model calibration.
  
- 3 The thermal mixing zone may be different from the mixing zone used for toxics