Exhibit A

295.18 Information Required in Application for Withdrawal of Water for Desalination Purposes [*Adapted from 40 CFR 122.21(r)*]

(a) An applicant for a diversion of water for desalination purposes must provide the following information:

(1) Source water physical data. This information must include:

(i) A narrative description and scaled drawings showing the physical configuration of all source water body to be used by the intake facility, including areal dimensions, depths, salinity and temperature regimes, and other documentation that supports your determination of the water body type where each intake structure is located;

(ii) Identification and characterization of the source waterbody's hydrological and geomorphological features, as well as the methods you used to conduct any physical studies to determine your intake's area of influence within the waterbody and the results of such studies;

(iii) Locational maps; and

(iv) For new offshore oil and gas facilities that are not fixed facilities, a narrative description and/or locational maps providing information on predicted locations within the waterbody during the permit term in sufficient detail for the Director to determine the appropriateness of additional impingement requirements under § 125.134(b)(4).

(2) Intake structure data. This information must include:

(i) A narrative description of the configuration of each intake structure and the location of the intake structure in the water body and in the water column;

(ii) Latitude and longitude in degrees, minutes, and seconds for each intake structures;

(iii) A narrative description of the operation of each intake structures, including design intake flows, daily hours of operation, number of days of the year in operation and seasonal changes, if applicable;

(iv) A flow distribution and water balance diagram that includes all sources of water to the facility, recirculating flows, and discharges; and

(v) Engineering drawings of the intake structure.

(3) Source Water Baseline Biological Characterization Data. This information is required to characterize the biological community in the vicinity of the intake structure and to characterize the operation of the intake structures. This supporting information must include existing data (if they are available). However, an applicant may supplement the data using newly conducted field studies. The information submitted must include:

(i) A list of the data identified in these paragraphs (ii) through (vi) of this section that are not available and efforts made to identify sources of the data;

(ii) A list of species (or relevant taxa) for all life stages and their relative abundance in the vicinity of the intake structure;

(iii) Identification of the species and life stages that would be most susceptible to impingement and entrainment. Species evaluated should include the forage base as well as those most important in terms of significance to commercial and recreational fisheries;

(iv) Identification and evaluation of the primary period of reproduction, larval recruitment, and period of peak abundance for relevant taxa;

(v) Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of biological organisms in the vicinity of the intake structure;

(vi) Identification of all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at the intake structures associated with the diversion;

(vii) Documentation of any public participation or consultation with Federal or State agencies undertaken in development of the plan of diversion; and

(viii) If you supplement the information requested in paragraph (a)(3) of this section with data collected using field studies, supporting documentation for the Source Water Baseline Biological Characterization must include a description of all methods and quality assurance procedures for sampling, and data analysis including a description of the study area; taxonomic identification of sampled and evaluated biological assemblages (including all life stages of fish and shellfish); and sampling and data analysis methods. The sampling and/or data analysis methods you use must be appropriate for a quantitative survey and based on consideration of methods used in other biological studies performed within the same source water body. The study area should include, at a minimum, the area of influence of the intake structure.

(b) The informational requirements of this section are in addition to informational requirements set forth elsewhere in this Chapter.

297.60 Minimizing Desalination Impingement and Entrainment [*Adapted from 40 CFR 125.84(b)*]

(a) If feasible, diversion of water for desalination purposes must utilize subsurface infiltration;

(b) If diversion of water for desalination purposes by subsurface infiltration is demonstrated to be infeasible, then intake structures for any desalination facility must:

(1) Be designed and constructed such that each intake structure has a maximum through-screen design intake velocity of 0.5 ft/s; and,

(2) Be designed and constructed such that the total design intake flow from all water intake structures meets the following requirements:

(i) For intake structures located in a freshwater river or stream, the total design intake flow must be no greater than five (5) percent of the source water annual mean flow;

(ii) For intake structures located in a lake or reservoir, the total design intake flow must not disrupt the natural thermal stratification or turnover pattern (where present) of the source water except in cases where the disruption is determined to be beneficial to the management of fisheries for fish and shellfish by any fishery management agency(ies);

(iii) For intake structures located in an estuary or tidal river, the total design intake flow over one tidal cycle of ebb and flow must be no greater than one (1) percent of the volume of the water column within the area centered about the opening of the intake with a diameter defined by the distance of one tidal excursion at the mean low water level;

(c) Design and construction technologies or operational measures for minimizing impingement mortality of fish and shellfish must be implemented at new intake structures for any desalination facility if:

(1) There are threatened or endangered or otherwise protected federal, state, or tribal species, or critical habitat for these species, within the hydraulic zone of influence of the intake structure; or

(2) Based on information submitted by any fishery management agency(ies) or other relevant information, there are migratory and/or sport or commercial species of impingement concern to the Director that pass through the hydraulic zone of influence of the intake structure; or

(3) Based on information submitted by any fishery management agency(ies) or other relevant information, that the proposed facility, after meeting the technology-based performance requirements in paragraph (b) of this section, would still contribute unacceptable stress to the protected species, critical habitat of those species, or species of concern; or

(4) the desalination intake is located within an area that has not been designated by the Texas Parks and Wildlife Department and the Texas General Land Office as appropriate for the location of a desalination intake.

(d) Design and construction technologies or operational measures for minimizing entrainment of entrainable life stages of fish and shellfish must be implemented at new intake structures for any desalination facility if:

(i) There are threatened or endangered or otherwise protected federal, state, or tribal species, or critical habitat for these species, within the hydraulic zone of influence of the cooling water intake structure; or

(ii) Based on information submitted by any fishery management agency(ies) or other relevant information, there are or would be undesirable cumulative stressors affecting entrainable life stages of species of concern to the Director and the Director determines that the proposed facility, after meeting the technology-based performance requirements in paragraphs (b)(1), (2), and (3) of this section, would still contribute unacceptable stress to the protected species , critical habitat of those species, or these species of concern; or

(iii) the desalination intake is located within an area that has not been designated by the Texas Parks and Wildlife Department and the Texas General Land Office as appropriate for the location of a desalination intake.

(e) A desalination facility must implement the following monitoring:

(1) Biological monitoring. The permittee must monitor both impingement and entrainment of the commercial, recreational, and forage base fish and shellfish species identified in either the Source Water Baseline Biological Characterization data required by 30 TAC 295.18(a)(3). The monitoring methods used must be consistent with those used for the Source Water Baseline Biological Characterization data required 295.18(a)(3). The permittee must follow the monitoring frequencies identified below for at least two (2) years after the initial permit issuance. After that time, the Executive Director may approve a request for less frequent sampling, if the Executive Director determines the supporting data show that less frequent monitoring would still allow for the detection of any seasonal and daily variations in the species and numbers of individuals that are impinged or entrained.

(i) Impingement sampling. The permittee must collect samples to monitor impingement rates (simple enumeration) for each species over a 24–hour period and no less than once per month when the cooling water intake structure is in operation.

(ii) Entrainment sampling. The permittee must collect samples at least biweekly to monitor entrainment rates (simple enumeration) for each species over a 24–hour period during the primary period of reproduction, larval recruitment, and peak abundance identified during the Source Water Baseline Biological Characterization required by 295.18(a)(3). You must collect samples only when the cooling water intake structure is in operation.

(2) Velocity monitoring. If the facility uses surface intake screen systems, the permittee must monitor head loss across the screens and correlate the measured value with the design intake velocity. The head loss across the intake screen must be measured at the minimum ambient source water surface elevation (best professional judgment based on available hydrological data). The maximum head loss across the screen for each cooling water intake structure must be used to determine compliance with the velocity requirement in 30 TAC 297.60(a)(1). If your facility uses devices other than surface intake screens, you must monitor velocity at the point of entry through the device. You must monitor head loss or velocity during initial facility startup, and thereafter, at the frequency specified in the permit, but no less than once per quarter.

(f) Visual or remote inspections. The permittee must either conduct visual inspections or employ remote monitoring devices during the period the intake structure is in operation. Visual inspections must be conducted at least weekly to ensure that any design and construction technologies required are maintained and operated to ensure that they will continue to function as designed. Alternatively, you must inspect via remote monitoring devices to ensure that the impingement and entrainment technologies are functioning as designed.

(g) A desalination facility must implement the following record-keeping requirements.

(1) Records must be kept of all the data used to complete the permit application and show compliance with the requirements, any supplemental information developed for the application, and any compliance monitoring data submitted pursuant to this Chapter, for a period of at least three (3) years from the date of permit issuance. The Director may require that these records be kept for a longer period.

(2) The permittee must provide the following to the Executive Director in a yearly status report:

(1) Biological monitoring records for each intake structure as required by 295.60(d)(1);

(2) Velocity and head loss monitoring records for each cooling water intake structure as required by 295.60(d)(2); and,

(3) Records of visual or remote inspections as required in 295.60(c).

(h) Any intake structure at a desalination facility must comply with any more stringent requirements relating to the location, design, construction, and capacity of an intake structure or monitoring requirements that the Executive Director deems are reasonably necessary to comply with any other provision of state law, including compliance with Chapter 307.