

Produced Water Disposal

The EIR must thoroughly analyze the applicant's claim that a single disposal well will be adequate to handle excess produced water, which is the water that comes up with the oil. The percentage of produced water, or water cut, assumed in the engineering calculations is important.

On page 13 of Excelaron's application, it states: "Although the exact water cut for the Huasna Field is unknown, the State average of 83% water was used for project calculations." Then on the same page they say that oil production could decrease to approximately 60 barrels per day, which corresponds to a water cut of 75%. In Excelaron's Response to the Information Hold Letter dated August 20, 2009, they state, "The processing facilities have been designed to accommodate a water disposal rate of 1,128 barrels of water per day. This disposal rate condition occurs under the proposed future twelve well scenario and assumes a water cut of 67%. Given the small amount of past production from this field and production from similar fields and formations, a water cut ratio of 67% is a very conservative estimate and the true water cut may be much lower."

So in different parts of their application there are three different numbers for the anticipated water cut: 83%, 75%, and 67%. This inconsistency in the project description and assumptions makes this project impossible to adequately evaluate. And they've designed their facilities for the best-case scenario which doesn't seem like a good engineering practice.

The applicant's recent Phase I Environmental Site Assessment dated September 23, 2009 reports that in 1987 the water cut for three of the wells on the project site ranged from 89-95%. The water cut in the Arroyo Grande field in nearby Price Canyon is 93% and the operator is challenged with removing produced water from the field.

Facilities should always be engineered for worst-case and not best-case scenarios. The EIR must evaluate the feasibility of the proposed facilities to dispose of worst-case scenario produced water.