

populations. There is no evidence to suggest that minority or low-income populations will experience disproportionate adverse impacts as a result of the construction and operation of the MB Pipeline. To the contrary, since less than 10% of the MB Pipeline will traverse areas where human health and safety could be adversely affected as compared to 50% in the case of truck transport, the MB Pipeline will result in lower risks to the health and safety of minority and low-income populations.

B. Impacts Due to Corrosion of the Pipeline or Damage From an Outside Agent

i. Impacts on Human Health and Safety: Corrosion of the MB Pipeline or damage to it from an outside agent may result in the release of hazardous liquids. Potential human health and safety impacts that may result from such a release include (i) fire or explosion from LPG or refined products, (ii) short-term exposure to hazardous vapors resulting from a refined product or LPG release, (iii) long-term exposure to hazardous vapors resulting from contaminated soils, ground water, or surface water following a release of refined products, and (iv) exposure to toxic constituents of refined product from ingestion.

The potential risks to human health and safety are most concentrated in areas where the MB Pipeline is close to residences, businesses, or transportation corridors. Only three small portions of the MB Pipeline will be located in areas where a pipeline accident could result in risk to nearby residences and businesses. This represents approximately $1\frac{1}{4}$ miles, or less than 7% of the total pipeline length. These also are the areas—along FM 1847, U.S. 77/83, and U.S. 281—where the greatest potential impact to health and safety of motorists is present.

Any mode of transporting hazardous liquids shares these potential safety impacts. Since accident rates for pipelines on a product mile basis are lower in magnitude (40 to 300 times) than those of rail or tanker transport, the U.S. Department of Transportation considers pipeline transport to be the safest transportation for refined product. As previously discussed, since the MB Pipeline will traverse less areas where impacts to human health and safety are likely to result from a major accident than the no-action alternative, the MB Pipeline should result in substantially lower risks to human health and safety than the “no action” alternative.

Expanding on the comparison of the project with the alternatives: (a) On a product mile transport basis, DOT

statistics show that pipeline transport is safer than tanker truck transport by orders of magnitude; (B) less than 10% of the pipeline route will be in areas representing a threat to human health and safety, as indicated by proximity of residences or businesses which may be impacted by an accidental release; however more than 50% of the route used by tanker trucks would be in such areas, because of the natural development patterns along public roadways in urban settings. These two factors combine to make pipeline transport of product much safer than the “no action” alternative. Moreover, at the level where there is sufficient data to perform risk-analyses, it does not matter from a human health and safety standpoint whether product is transported in the MB Pipeline or in the POCC pipeline.

The MB Pipeline project has incorporated many safety features to address human health and safety concerns. These include specifications and maintenance practices to reduce the probability of outside force (third-party) damage, corrosion, or poor construction practices resulting in a release of product. Drilling or boring below waterways reduces the probability that a pipeline release could contaminate valuable water resources. In addition, leak detection systems coupled with 4 remotely-operated valves provide a means for the operator to rapidly respond to any accidents by shutting down the pipeline and isolating the leaky section.

ii. Environmental Impacts: The air quality impacts from an accidental product release from the MB Pipeline would be short term and would not constitute a significant impact. Brownsville is not close to non-attainment for any of the National Ambient Air Quality Standards, and while a major release could result in an increase in ozone formation, environmental engineers advise it is not likely that even this condition would cause non-attainment conditions.

Groundwater contamination from an accidental release is more likely to occur due to a slow refined products leak that goes undetected for a substantial portion of time, so that product might transport through the soil downward to the local aquifer system. Proper cleanup of contaminated soil should prevent long-term impacts to groundwater. The transportation of soil downward to the local aquifer system, however, may also result in contamination of soils in the vadose zone, and stress local vegetation, a symptom that would be detected during the regular pipeline patrols. If such

problems were observed, investigations could be commenced in the vicinity of the pipeline where the release is occurring, and remediation, including soil cleanup, could once again proceed. Given the slow transmission capability of the soil types surrounding the MB Pipeline, it is unlikely that substantial volumes of refined product would reach the local aquifer prior to detection and remediation.

Looking at the potential impacts to drinking water from an accidental release, the proposed MB Pipeline routing crosses the Rio Grande substantially upriver of the POCC crossing. This would place it further away from the diversion for the Olmito Water Supply, and from the Brownsville Diversion Point. This distance would be critical in an accident scenario because of the additional time it would take for product to travel downstream to those diversion points.

Most of the MB Pipeline right of way traverses areas characterized either by sparse grassy areas or by agricultural cultivation. An accidental release of product in either area would result only in minor impacts to biological resources. Emergency response and soil remediation should ensure no long-term impacts to the local vegetation. No threatened or endangered vegetative species were identified which might be critically impacted from a release.

In conclusion, the Department finds that impacts on the environment from an accidental release would not be significant.

iii. Probable Adverse Environmental Effects Which Cannot Be Avoided Due to Associated Cumulative Effects: The cumulative effects from an accidental release of product are discussed in detail in the final environmental assessment. In short, there are two important factors to take into consideration with respect to cumulative impacts analysis on human health and safety for the MB Pipeline. The first is the cumulative effect of risks to the MB pipeline, and correspondingly to those living or working near to the MB Pipeline, due to potential accidents on other pipelines in the vicinity. This particularly applies to the POCC pipeline, which shares a common right-of-way for approximately two thirds of the MB Pipeline route. The second is the cumulative effect of the increased overall risk to surrounding populations from an industrial accident occurring along the right-of-way that results in the release of hazardous liquids from the MB Pipeline, industrial sources or both.

A study of U.S. DOT databases has not revealed any cases where a belowground pipeline has had an