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MidAmerican Energy
4299 NW Urbandale Drive
Urbandale, Iowa 50322

December 1, 2006

Ms. Diana Engeman
Remedial Project Manager
Superfund Division
U.S. Environmental Protection Agency, Region VII
901 North 5th Street
Kansas City, KS 66101

RE: Petition for Technical Impracticability Waiver
Peoples Natural Gas Site
Dubuque, Iowa

Dear Ms. Engeman:

Pursuant to Section IX of the 1992 Consent Decree, Civil Action No. C92-1048, MidAmerican Energy Company (MidAmerican) petitions the United States Environmental Protection Agency (EPA) to modify the groundwater component of the Remedial Action and to waive compliance with performance standards for groundwater on a portion of the People's Natural Gas (PNG) site in Dubuque, Iowa identified as the Technical Impracticability (TI) Zone (Figure 1). This petition is based on detailed information presented in the Technical Impracticability Evaluation Report as submitted to the agency in May 2006.

It was concluded that it is technically impracticable from an engineering perspective to comply with performance standards for groundwater within the TI zone. The basis for the conclusion is summarized below:

- The groundwater extraction system was designed, implemented, and optimized to improve the effectiveness of the system to the maximum extent practicable. However, site-specific hydrogeologic, geochemical, and contaminant-related factors, including the presence of dense nonaqueous phase liquid (DNAPL) prevents the attainment of the performance standards.
- Comprehensive groundwater monitoring data collected during the past seven years indicated concentrations of most contaminants within the TI zone have not shown a statistically significant difference despite the extensive remedial efforts in the form of soil removal, groundwater extraction and treatment, and ozone sparging with soil vapor extraction that have been undertaken at the site.

- Approximately 614,290 pounds of contaminant mass remains at the site, although approximately 522,282 pounds of contaminant mass has been destroyed or/and removed from the site during various phases of soil excavation, operation of the groundwater extraction system, and the ozone sparging with soil vapor extraction system. Approximately 0.2 percent of mass reduction was achieved through groundwater treatment. Approximately 99 percent of remaining contaminant mass is comprised of polycyclic aromatic hydrocarbons (PAHs). PAHs have a higher propensity to remain bound to the soil matrix than dissolve into groundwater due to characteristic low aqueous solubilities, vapor pressures, and Henry's Law Constants and high molecular weights, K_{oc}, and K_{ow} values.
- It has been demonstrated that other conventional technologies and potentially applicable innovative technologies cannot feasibly attain the performance standard within the TI zone. Key limitations include, but are not limited to the following:

  (1) Further source removal by excavation is physically limited by the presence of U.S. Highway 61, the City maintenance garage, and the 30-inch sanitary sewer force main and concerns over potential damage to the lower confining unit (LCU);
  (2) A large spatial area and aquifer volume at the site are impacted with residual and free-phase DNAPL. The presence of DNAPL will exist as a long-term source of groundwater contamination;
  (3) The complex stratigraphy of the silty sand aquifer presents intrinsic difficulties to any remedial alternative. Dissolved contaminants will diffuse from the fine-grained lower permeability lenses into the higher permeability zones, preventing aquifer restoration within a reasonable time frame; and
  (4) Because of the topography and thickness of the LCU, any remedial options that require contact with the LCU risk compromising the integrity of the layer.

Pursuant to Paragraph 21.f. & 21.g. of Section IX of the Consent Decree, MidAmerican proposes a technically practicable alternative remedial strategy that incorporates access restrictions and monitored natural attenuation (MNA) to achieve the performance standard outside of the TI zone. As part of the alternative remedial strategy, sampling will be conducted to monitor plume stability through natural attenuation processes. MNA will allow detection of groundwater concentration changes or plume migration. Semiannual gauging for free product will be continued to monitor the potential for DNAPL migration. Potential exposure to contaminated groundwater will be effectively controlled by an

environmental covenant through the land use restrictions and well installation prohibitions. The alternative remedial strategy is protective of human health and the environment.

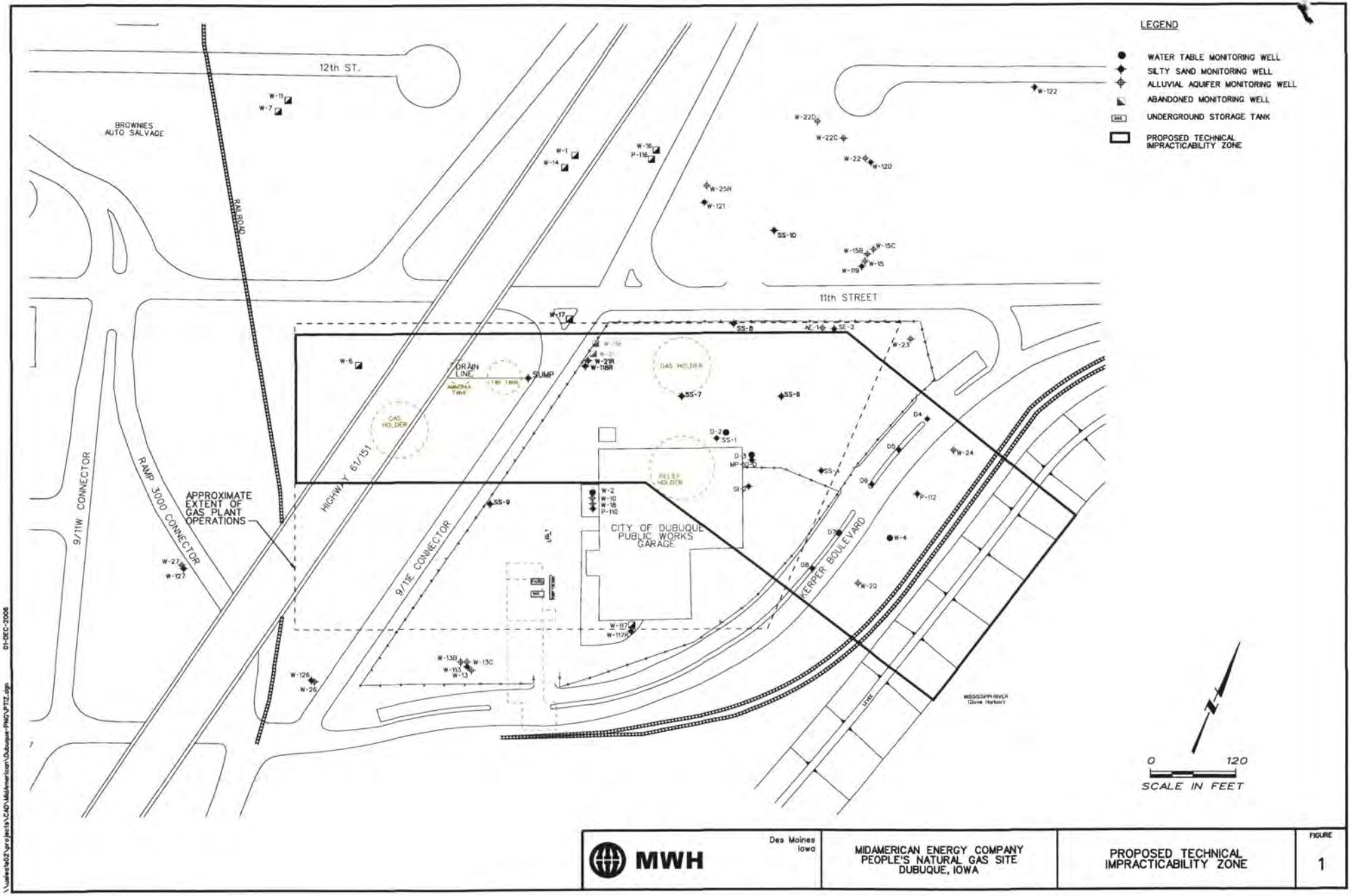
Based on the above discussion, MidAmerican respectfully petitions the EPA approve the Technical Impracticability Evaluation Report and grant the waiver of compliance with the performance standards for groundwater within the TI zone.

If you have questions regarding this petition or need additional information to make your decision, please contact me at 515-242-3974.

Sincerely,

Michelle Wei
Manager, Environmental Programs

cc: Kevin Armstrong, MWH
Dan Cook, Iowa Department of Natural Resources
Jim Rost, Iowa Department of Transportation
Barry Lindahl, City of Dubuque
Don Vogt, City of Dubuque



MWH — Des Moines Iowa

MIDAMERICAN ENERGY COMPANY
PEOPLE'S NATURAL GAS SITE
DUBUQUE, IOWA

PROPOSED TECHNICAL IMPRACTICABILITY ZONE

FIGURE 1

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