

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: APR 17 1986

SUBJECT: Tutu Wells Site - Draft Feasibility Study: Air Programs Branch Review

FROM: Marlon Gonzales, Air Superfund Coordinator
Air Programs Branch, AWM

TO: Caroline Kwan, Project Manager
New York/Caribbean Superfund Branch II

Through: Rudolph Kapichak, Chief
Technical Evaluation Section, AWM-APB

Rudy Kapichak

The Air Programs Branch has completed its review of the draft Feasibility Study for the Tutu Wells Site located in St. Thomas, U.S. Virgin Islands.

Site Background:

The site is located in the Tutu area of St. Thomas, in the east-central part of the island at the Anna's Retreat Section. The area, which is located in the Turpentine Run drainage basin, is surrounded by high hills to the east, west and north; and, it is home to both residences and mixed industry. A number of water wells were sunk into the area to supply homes and industries.

Groundwater contamination was detected when a strong petroleum odor, coming from a public water supply well for the area, was reported. Subsequent investigations conducted by the Virgin Islands Department of Planning and Natural Resources, EPA and contractors indicate that chlorinated and petroleum-related volatile organic compounds (VOCs) had contaminated area soils and ground-water.

Certain commercial properties have been identified as the source of the area's contamination, including: the Texaco and Esso Service Stations; the Tillett Gardens property; Western Auto; the Curriculum Center; and, the O'Henry Dry Cleaners.

The draft feasibility study describes a number of site-wide remedial alternatives including:

SWRA 1: No Action/Institutional Controls

SWRA 2: Institutional Controls/Excavation and disposal for Soil Remediation/Dual Plume Containment/POET System and Groundwater Treatment/Discharge to Beneficial Reuse for Groundwater

SWRA 3: Institutional Controls/Excavation and Disposal/Capping/SVE for Soil Remediation/Plume Containment/Groundwater Treatment and Discharge for Beneficial Reuse for Groundwater Remediation

TUT 006 2163

- SWRA 4: Institutional Controls/Excavation and Disposal/Capping/SVE for Soil Remediation/Dual Plume Containment/POET System and Groundwater Treatment/Discharge for Beneficial Reuse for Groundwater
- SWRA 5: Institutional Controls/Excavation and Disposal/Capping/SVE for Soil Remediation/Dual Plume Containment/POET System and Groundwater Treatment/Beneficial Reuse for Groundwater
- SWRA 6: Institutional Controls/Capping/SVE for Bioventing/Excavation and Disposal for Soil Remediation/Plume Containment/Groundwater Treatment/Beneficial Reuse for Groundwater
- SWRA 7: Institutional Controls/Capping/Excavation and Disposal/SVE or Bioventing for Soil Remediation/Dual Plume Containment/POET Systems and Groundwater Treatment/Beneficial Reuse for Groundwater
- SWRA 8: Institutional Controls/Capping/SVE or Bioventing/Excavation and Disposal for Soil Remediation/Dual Plume Containment/POET Systems and Groundwater Treatment/Beneficial Reuse for Groundwater

The draft feasibility study report indicates SWRAs 4 and 7 to be the preferred alternatives.

Comments:

- ♦ In the Comparison of Site-Wide Remedial Alternatives (Section 4.3), it does not appear that remediation options were reviewed to ensure compliance with ARARs (and TBCs).
- ♦ Vinyl chloride is one of the contaminants targeted for removal from the soil and groundwater. However, this compound may not have a good affinity for the activated carbon filters that will be used to capture the process off-gases. This may ultimately result in its release to the atmosphere. The remedial design may need to develop a special strategy for handling vinyl chloride. Also, a plan for monitoring vinyl chloride emissions (and other VOCs) from remediation activities is needed.
- ♦ Since excavation and/or treatment of materials contaminated with volatile organic compounds is to be undertaken as part of this site's remediation, we recommend that air monitoring be implemented as a check on good engineering practices (during remedial activities); public health risk; and, compliance with chemical-specific ARARs. Monitoring should also be included in the cost estimates for remediation.

If you have any questions, please call at X4236.