STATE OF FLORIDA MANUFACTURED GAS PLANT AKA: COAL GASIFICATION PLANT AKA: TOWN GAS PLANT ASSESSMENT AND REMEDIATION STATUS



Prepared By: Florida Department of Environmental Protection Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Division of Waste Management Waste Clean-up Section DoD, Brownfields and CERCLA Programs

> A. James McCarthy Jr., P.G Professional Geologist II February 3, 2019



State of Florida

Ron Desantis Governor

Jeanette Nunez Lt. Governor

Noah Valenstein FDEP Secretary

Introduction



Harry Leith-Ross (1886 - 1973, New Hope, Pennsylvania) "Gas Works" Watercolor on paper 20 x 26 inches Signed at lower right Private collection, Bucks County, Pennsylvania

In September 1985, the Florida Department of Environmental Regulation, now FDEP, Site Screening Superfund subsection (CERCLA Group) was tasked by then Bureau Chief Bill Buzick to identify and conduct Preliminary Assessments (PAs) at Florida's known and unknown manufactured gas plant (MGP) sites. A legacy of the "Gas Light" era, these plants have also been referred to as "coal gas", "coal gasification plants" or "Town Gas Plants". This request was spurred by the discovery of coal tar contamination at the People's Gas facility in North Miami Beach. Through a heating process, MPGs used coal (or coke); steam and a gasification agent (naphtha, Bunker C fuel oil, diesel fuel No. 6) to produce a combustible gas (hydrogen & carbon monoxide) for City street gas lights, home lighting and stoves. These plants were often municipally owned. However, they were often franchised out to private utilities. These plants operated in Florida from the late 1880's to the late 1950's. Most MGP operations ceased in Florida by 1959 with the completion of the natural gas transmission lines. Waste products from MGP operations included tars, aqueous ammoniacal liquors, cyanide "Prussian Blue" and heavy metals. Coal tar contains a number of volatile organic compounds including benzene, ethyl benzene, toluene & xylene (BTEX) and polycyclic aromatic hydrocarbons (PAHs) [i.e. benzo [a] pyrene]. Housekeeping practices at the MGPs were very careless. Tar and other waste products were often discharged directly to the ground and/or into nearby streams. Many of the storage tanks (tar water separators, pits, and Gasometers) were prone to leaking. As a result, soil, surface water/sediment and groundwater contamination was fairly common at the MGPs.

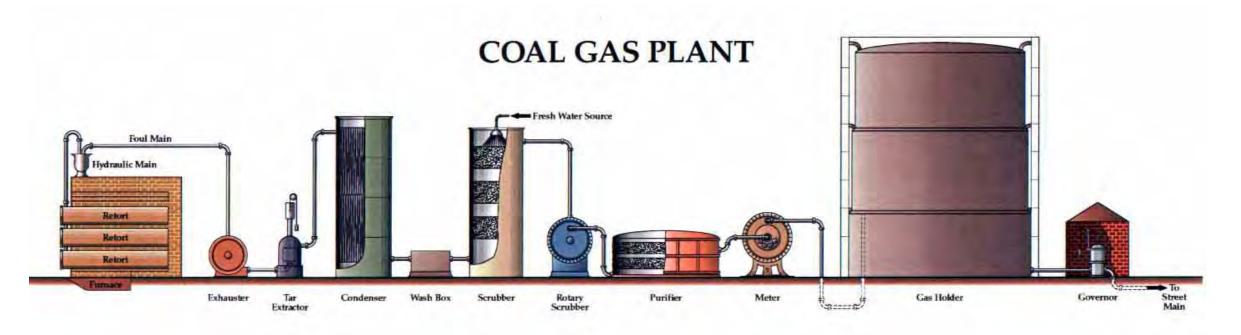
Through the use of the EPA's Radian Corp. 1984 Report on Survey of Tar Disposal, Locations of Town Gas Producers, Brown's Directories of American Gas Companies (1887-1944, 1950, 1959 & 1960), Sanborn Fire Insurance Maps, library research and just plain old-fashioned detective work, the FDER/FDEP CERCLA Group initially identified 24 locations of Florida MGPs. The list ultimately grew to 29 MGP and MGP Dump sites. However, two of the suspected MGP sites turned out to be a transfer station (Deland Gas Systems) and the other produced only Hasche gas (Deland Hasche Gas Plant) with no detected MGP impacts. Five of the MGP sites are currently under EPA Region 4 lead as Superfund Alternative Sites (i.e. West Florida Natural Gas, Cascade Park Gasification Plant/Cascade Landfill, Orlando Gasification Plant, Sanford Gasification Plant & St. Augustine Gas Plant). The first list of Florida MGP locations and status was generated in January 1990. This list included the location, owner and status of assessment and remediation. This list was subsequently updated in October 1990, September 2003, February 2004, May 2009 and March 2013. Information on this list was derived from the Departments Oculus and ERIC databases, FDEP's District offices, EPA Region 4, the EPA Superfund Information Systems and Superfund NPL/ Superfund Alternative site websites. An explanation of the Columns (from left to right) in the **Tables follows:**

- Column 1 MGP Address, Off-site MGP Impacted Address and Current Activities/Business includes street number, City and what business and/or activities are currently on site for the former MGP and any off-site impacted properties(via Google Maps/Street View).
- Column 2 District FDEP District in which MGP site exists.
- Column 3 EPA ID #, FDEP ID #s and MDERM-RER (Miami-Dade Co. Sites) Folio# EPA ID # is for CERCLA Superfund related work. FDEP ID #s are used on the Oculus/ERIC databases. MGP sites in Miami-Dade County are identified by MDERM-RER Folio #s.
- Column 4 Gas Type & Years of Operation Using documents from Browns Annual Directories of American Gas Companies (and site file). Also, lists what type of gas manufacturing process the MGPs used, (i.e., Coal Carbonization, Water Gas, Carbureted Water Gas and/or Oil Gas). Also, the years the MGP was in operation manufacturing gas using one of the four processes.
- Column 5 CERCLA Assessments (PAs, APAs, SIs, etc.) List the month/year and type of CERCLA directed assessment reports, whether they were conducted by the FDEP CERCLA Group or EPA Region 4.
- Column 6: Comments: Re: EPA. County and/or State Enforcement, Activities, Major Documents and Milestones. Arranged chronologically and commonly grouped in decades for MGPs with a long site history. Please note this column does not include the various FDEP, EPA or local government review comments to PRPs and RPs on the various draft Workplans, Reports, etc.

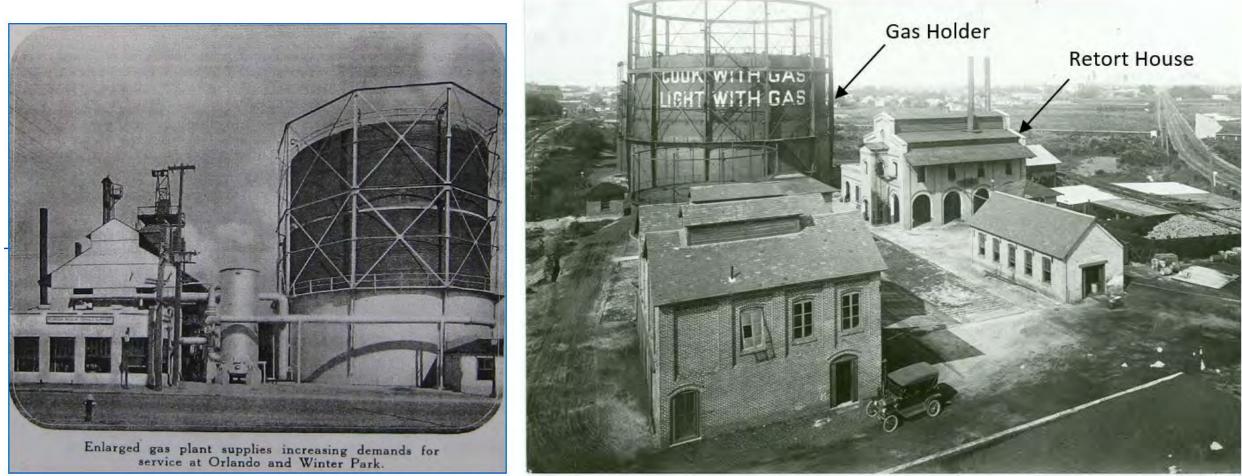
Please refer to the Key to Abbreviations and Acronyms below for definitions of the abbreviations. The reader is encouraged to review the site files on FDEP's OculusTM /ERIC databases or County websites (Broward, Miami- Dade) for more detailed information about the MGPs.

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Courtesy: Dr. A.W. Hatheway's Former Manufactured Gas Plant web site



Orlando and Tampa MGPs

| MGP Address, Off-site MGP Impacted Property Address & Current Activities/Businesses | District | EPA ID# FDEP Site ID # MDERM-RER Id # Folio # | Gas Type & Years of MGP Operation | CERCLA Assessments (PAs, APA's,SIs, etc.) | Comments: Re: EPA, County and/or State Enforcement, Activities, Major Documents and N |
|--|----------|--|--|--|---|
| Gainesville Gas Plant Aka: Former Poole Roofing Co. MGP address 710 S.E. 2 nd St. Gainesville, FL 32601-7015 Former CSX Property-Depot Park 874 S.E 4 th Street, Gainesville FL 32601 Currently: Former MGP: As of February 2017, an Artist Workshop & vacant land (Fmr. Hortonsphere & Holder Tanks). Off-site former CSX MGP impacted property: Depot Park including pond areas, walking trails, play area, Cade Museum and a nature preserve; Also, a restaurant, bar and general store along SE Depot Ave. | NED | FLD981931967 COM_69589 BF010001000 BF010001001 (Fmr. Poole Roofing) BF010001002 (Fmr. CSX) 8518101 | C, W, CWG, O 1889 - 1952 | PA-12/1987 PAR-9/1989 SSI-4/1990 SSI Addendum 11/1990 Level B SIP 6/1995 ESI-12/1999 EPA Recommendation: OCA, State Lead Cleanup | State lead through FDEP NED. Most of MGP located on Poole Roofing. MGP migration im was Sprout Pilot Brownfield project. 1980 to 1989 – December 1987 FDEP completes CERCLA PA. March 1988 PCAP. October 1990 to 1999 - April 1990 Final CERCLA SI report using RP generated (Desk-top) data. Se contamination assessment. 1993 Supplemental CAR. December 1994 RAP. 2000 to March 2013 – 2000 – RAP for former CSX Property 2001-2002 BSRAs signed. Mar (Poole Roofing & CSXT Parcel) submitted. December 2008 Phase 1 RAP Addendum appro February 2009 Phase 2 (CSXT property) RAP submitted. 2009-2010 Phase 2, dewatering, v tons of MGP contaminated SL removed to an approved landfill and over 40 million gallons property. Excavation to 50 feet BLS. As part of the petroleum program, 121,220 tonnages o August 2012-Source Removal Report estimates 90 – 95% of contaminant mass removed un Update: December 2015 to December 2016 PARM Reports (Y1 Quarters 1-4) to Year 3 Quart in 2016. April 2017 RAP Approval Order issued by FDEP. July 2018 PARM report 5th Even |
| Main Street MGP/ParkviewInn (Former Citizens MGP)Aka: EHT/Confederate Park901 North Main St. (MGP)/956Hubbard Street (ConfederatePark) Jacksonville, FL32202/32206Currently: Former MGP -Parkview Inn now mostlydemolished with remnants of theparking garage associated withformer hotel.Off-site MGP impacted area:Confederate Park with HoganCreek, a pond and monument | NED | FLSFN0407139 COM_152721 COM_185118 9801051 BF160001017 | Unk Likely CWG Late 1800's to early 1900's | PSA 3/2000 PA-4/2000 SI-12/2001 EPA Recommendation: OCA, State Lead Cleanup | Currently State lead through FDEP NED District. State had earlier requested EPA action. Park. Possible Brownfield site. Coal tar residuals found under old hotel and adjacent Confectizens MGP was located on abandoned Park View Inn. 1990 to 1999. July 1993 EHT Corp CAR. June 1996 Preliminary RAP Activity Report for I 1999 PCAP for Park View Inn received. 2000 to 2009 – January 2000 PCAR for Park View Inn received by FDEP. April 2000 FDEI Addendum for Park View Inn. May 2001 CAP for Park View Inn. June 2001 SI WP for Ma July 2001 CAR for Park View Inn received. September 2001 PCAR for Confederate Park received. J May 2008 Revised SAR for Park View Inn received by FDEP. Little cooperation with Park Confederate Park. Coal tar contamination found in former footprint of Hogan Creek on Corequested EPA evaluate for taking on as an EPA Superfund site. September 2009 FDEP. COJ con Confederate Park. |

d Milestones.

impacts to former CSX Yard. Off-site portion of site

er 1988 PCAR.

September 1992-CO Conditional approval of

Tarch 2008 RAP Source Removal Plan for Phase 1 roved. July 2010 Phase I Source Removal completed. , water treatment and SL removal. More than 147,000 ns of contaminated GW treated at former CSX s of SL were removed in late 2009 and early 2010. under Phase II.

Quarter 2. July 2017 RAP MOD. Depot Park completed vent. September 2018 PARM report 6th Event.

n. COJ and FDEP NED Neg. CO. for Confederate nfederate Park, just north of former MGP. Former

• EHT Corp. March 1997 RAPA for EHT Corp. March

EP completes CERCLA PA. February 2001 PCAP Main Street MGP completed by FDEP State contractor. k received. December 2001 Final CERCLA SI report . July 2007 Limited CAR for Park View Inn received. rk View Inn PRPs. August 2008 CAR received for COJ owned Confederate Park in 2001 & 2008. State notifies PRP (Park Group Inv.) of further EPA action. completed 2nd phase of contamination assessment on

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|--|----------|---|---|--|--|
| honoring women of the Confederacy. | | | | | 2010 – 2012 - April 2010 EPA requests FDEP position on NPL listing. May 2011 COJ subm concludes assessment phase completed on Confederate Park and asks for RAP. FDEP requested MGP). July 2012 COJ requests extension for RAP on Confederate Park. Still in assessment date. State requests a hold regarding NPL listing. Update: January 2014 FS for Confederate Park. FS considers Hydraulic Control, Barrier VISS and MNA as Options. June 2015 & March 2016 RAP and Revised RAP for Confederate Parkview Inn owners (consultants) submitted a Phase II ESA report. September 2018 BSR November 2018 Aquifer Performance Test /Groundwater Flow Modeling/Mass Flux Assess Confederate Park submitted to FDEP. |
| Palatka Gas Authority Aka: Forida Power & Light 518 Main St. Palatka, FL 32177-3617 Currently: Still Palatka Gas Authority. | NED | FLD981932007 COM_68359 | Lowe CWG 1917 - 1932 | PA-2/1988 SSI-3/1991 SIP 5/1994 Recommendation: NFRAP | Site Archived by EPA. State lead through FDEP NED. 1990 to 1999- November 1993 CAR. July 1996 Supplemental CAR. March 1997 Source Report and the impacted SLs and debris. 2000 to 2009 - May 2003 Initial Assessment Report/CAP Addendum. Large scale SL remove 2004 IRAR 28,600 tons of MGP impacted SL removed/treatment of 2.2 million gallons of in Completed initial Contamination Assessment phase. Remediation remedy-Natural attenuat submitted. March 2009 RAP approved by FDEP. May 2009 Remediation started incl. NAN bioremediation, sulfate injection and GW treated with GAC filter. GW monitoring and remediation and FDEP. June 2013. GW Monitoring Reports J April 2014, July 2014, January 2015, August 2015, March 2016. October 2016 Conditional |
| Peoples Gas System/TECO Aka: Jefferson Smurfit Corp of America Aka: Former Manufactured Gas Plant 1580 West Beaver St. (FMGP) 1435 West Church St Jacksonville, FL 32209-7210 & 32204 Currently: Commercial Properties including recycling facility | NED | FLD981024672 COM_127942 COM_15605 | W, CWG 1890's - 1950 | PA-10/1985 SSI- 6/1986. Reassessment- 7/2001 Recommendation: OCA, State Lead Cleanup | EPA OCA, State lead is FDEP-NED. 1980 to 1989 - November 1988 PCAR. 1990 to 1999 - January 1999 CAR. October 1999 FS. 2000 to 2009 - Two PRP funded IRAs (SL removal) conducted. June 2000 IRAR approx. 8, req. Additional Assessment shows offsite GW impacts. PRP has filed for bankruptcy, susper additional assessment from TECO. 2010 – 2012 - June 2011 SARA submitted. November 2011 FDEP agrees additional GW assers Proposed off-site GW sampling map sent to FDEP. September 2012 Off-site site access graupdate: September 2013 SARA completed. October 2014 IRAP issued. IRAP October 2015 monitoring GW. RAP needed for TECO portion |

d Milestones.

bmits SAR for Confederate Park. May 2012 FDEP quests SARA for Parkview Inn (Former Citizens ent phase for motel portion. No remediation activities to

r Wall w-Extraction & MNA and Barrier Wall with rate Park received by FDEP. August 2018 Former SRA for Parkview Inn/Confederate Park executed. essment/Multi-Phase Extraction Pilot WPs for

Removal Documentation Report. Removed 7,800 tons of

noval and treated GW conducted in 2004. November f impacted GW & and in-situ treatment by ORC. uation and GW monitoring. November 2008 RAP AM GW monitoring. Remediation consists of remediation continue.

s July 2013, November 2013, January 2014, April 2014, al SRCO issued.

8,900 tons of MGP SL removed. Further assessment spended work on site. June 2009 FDEP requests

assessment needed and to defer RAP. April 2012 granted.

015 Summary Report received. Both RPs are

| MGP Address, Off-site MGP Impacted Property Address & Current Activities/Businesses | District | EPA ID# FDEP Site ID # MDERM-RER Id # Folio # | Gas Type & Years of MGP Operation | CERCLA Assessments (PAs, APA's,SIs, etc.) | Comments: Re: EPA, County and/or State Enforcement, Activities, Major Documents and N |
|---|----------|---|---|---|--|
| Pintsch Compressing Gas Co. Gas Works Aka: West Bay Creosote Study Intersection of West of Bay Street and Myrtle Ave. Jacksonville, FL 32204 Currently: Former MGP: TTX Company Property. Off-site MGP Impacts: COJ & FDOT ROW & JTA Paratransit Services retention pond area. | NED | FLN000407365 COM_69669 ERIC_5901 271-1 | O (Pintsch), 1903 - 1927 | PSA 7/2001 PA-9//2001 SI- 12/2008 EPA Recommendation: FA ESI Start Needed | Initially an EPA Lead. SL and some GW contamination detected during 2008 SI. Due to lac NFRAP. Site reportedly referred to NED District. Former rail yard MGP. Gas was manufa the illumination of railroad cars. 1980 to 1989 – January & February 1987 & January 1988 – May 1988. Geotechnical explor borings near southeast corner of Myrtle Ave. underpass & West Bay Street/Myrtle Ave. int detected. May 1988 SL sample from a boring had PAHs similar to coal tar. September 1988 northeast corner West Bay Street/Myrtle Ave. intersection. SL contamination determined. PAHs. November 1988 FEC PCA conducted at northeast corner West Bay Street/Myrtle A detected. January 1989. Additional assessment, heavily contaminated SLs detected. GW an dense residue encountered. SL and residue samples contained PAHs typical of coal tars. Gv and TRPHs. 1990 to 1999 – January 1990 & February 1990. OVA screening of cuttings during I-95 supp 95 near southwest and northeast corners of West Bay Street/Myrtle Ave. intersection. Exce detected. GW with strong "creosote/petroleum" odors encountered. GW sample had high b seep discovered emanating from cracks in retaining wall of the Myrtle Ave. intersection. Exce Sample had high levels of BTEX and PAHs similar to creosote or coal tar. Lead and silver : Bay Creosote Study. October 1997 dark brown, yellow brown, viscous NAPL observed dur and adj. ROWs. Benzene, ethylbenzene and ylene, TRPHs and PAHs (BaP) detected abov adjacent ROW. November 1997 Benzene, ethylbenzene, PAHs (i.e. naphthalene, BaP), TRF seep has elevated BTEX and PAHs. Highest levels of PAHs near retention pond north of FN TRPHs on footprint of FMGP. 2000 to 2009 - February – March 2000 Benzene, ethylbenzene and PAHs (i.e. acenaphthene samples also collected. VOCs & PAHs detected. Highest levels of PAHs near retention pond west Bay Creosote study. GW, SL, GW flow contamination data suggests MGP (Pintsch) is and GW contamination. February 2003 EPA CERCLA SI Workplan. July 2008 SI fieldwo termination. Dece |
| Riverfront Park MGP Site Aka: Palatka Gas Light & Fuel Co. River and South 3 rd Streets. Palatka, FL 32177 | NED | FLD981932015 COM_140647 | C, W 1885 - 1959 | PA-2/1988 SSI- 10/1989 SSI Phase II 8/1990 EPA Recommendation: NFRAP | Site Archived by EPA 8/90. State Lead NED. 2000's - September 2000 Environmental Assessment Summary Report & Source Removal I Source Removal Report. December 2001 GW Monitoring Report. Update: Assessment and remediation (soil excavation) complete. enforcement closed. |

d Milestones.

ack of receptors and urban setting, EPA issued an factured by the rail company designed expressly for

oration for I-95 expansion. Petroleum odors in SL ntersection. Petroleum product and SL staining 88 FDOT Contamination Assessment of property at I. GW samples contained elevated levels BTEX and Ave. intersection. Heavy oil SL contamination and SL samples collected east of intersection. Black GW samples contained elevated levels of VOCs, PAHs

pport structure drill shafts during rehabilitation of Icessively contaminated SLs (>100 PPM organic vapors) a levels of lead and "creosote". July 1991 A "creosote" ep near former MGP. FDER collects sample of seep. r also detected. March 1997 FDER SIS begins West uring SL borings and GW sampling of former MGP ove SCTL criteria in SL samples on FMGP and RPHs detected in GW above GCTLs. SW sample from FMGP. In general, highest levels of VOCs, PAHs &/or

ne, naphthalene) detected in GW above GCTLs. SL nd north of FMGP. July 2001 FDEP SIS completes o is source. Recommends additional delineation of SL york. Delay in SI caused by EPA START contract ART data. Elevated levels of VOCs (Benzene, evels of VOCs and PAHs on former MGP site and just inthalene) detected in GW above GCTLs.

ional site assessment may be warranted.

l Plan. May 2001. GW Assessment Plan, July 2001

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|--|----------|---|---|--|--|
| Currently: Riverfront Park and Palatka City Dock and Boat Ramp | | | | | |
| St. Augustine Gasification Aka: St. Augustine Gas Co. Aka: St, Augustine Gas Service 98 Riberia St. St. Augustine, FL 32084 Currently: Owned by Fisherman's Harbor Marina, Inc. Includes Seafood Wholesale Shop. | NED | FLD101835528 COM_69756 | W, CWG 1885 – 1956 | PA-3/1988 SI-10/1991. ESI- 4/1997. EPA Recommendation*: Remedial Activities Under EPA Enforcement | EPA lead. Superfund Alternative site*. MGP impacts to San Sebastian River and adjacent 1990 to 1999 - September 1998 AOC signed between COSA, Atlanta Gas and EPA for EE/C 2000 to March 2013 April 2000 Final EE/CA report. September 2000 Excavation of contam AOC signed between COSA, Atlanta Gas and EPA for Remedial action. Contamination. As contaminated SL by January 2002. NAM for VOCs started for GW in 2003. WP for Marin deals with handling of contaminated Sed. November 2006 WP and HASP approved. 2007 D contamination removed. |
| Daytona Beach Gasification Plant Aka Daytona Beach MGP Aka: Daytona Beach Service | | | W, CWG 1912 – mid 1950's | PA-5/1990 SI- 7/1991 | Update: Update: Remedy construction complete. GW monitoring on-going. December 201 supposed to have marina, hotel and condominiums when complete. However, site developm (404-562-8891) is the EPA RPM joseph.robenson@epa.gov Site Archived by EPA in 1993. Site lead by FDEP CD. 1990 to 1999 - February 1991 FDEP State contractor completes CERCLA SI WP. March 11 sampling investigation. July 1991 FDEP State contractor completes CERCLA SI report. De |
| Center 132 N Seagrave Ave. Daytona Beach, FL 32114-3139 Currently: Still FP&L Service Center. | СЪ | FLD984171728 COM_91018 | | EPA Recommendation: NFRAP | Source Removal Documentation Report. Approx. 41,000 tons of MGP impacted SL, 5,800 g contaminated GW removed. October 1999 First Annual GW Monitoring Report 2000 to March 2013 - November 2000, April 2002, June 2004, March 2005 Second to Fifth A Assessment Activities Report. February 2009 Annual GW Monitoring Report. December 20 2013 - March 2011, March 2012, March 2013 Annual Reports of Site Activities. November August 2012 WP to Prepare Remedial Alternatives Evaluation. As of early March 2013 Sur performed an IRA SL/source removal, are continuing FP removal. FP recovery wells instal ongoing. |
| | | | | | Update: March 2013 Remedial Alternatives Evaluation Report . October 2013 Pilot Study 2014 Pilot Study Completion Report (Biosparge). June 2015 RAP. November 2015 FDEP is Monitoring Report. January 2017 to May 2018 Remedial Action Status Reports sent to FDI for expansion of Biosparging program. November 2018 Remedial Action Status Report. FD SL/source removal, are continuing FP removal, & biosparging since 2016 per approved Pile expand biosparge system. |
| Deland Gas System | CD | FLD984172197 COM_315091 | N/A N/A | PA-6/1991 SI- 4//1998 | Tank transfer station. No MGP operations. Gas piped from Sanford MGP. No further fede |

d Milestones.

nt wetlands.

E/CA.

taminated SL & Sed approved by EPA. March 2001 Assessment complete. Removed approx. 70,000 yd³ of ina development sent to EPA and NOAA. WP plan 7 Dredging Marina excavation. 99% of MGP source

2018. Annual GW monitoring event ongoing. Property pment on hold due to lack of funding.. Robenson Joseph

1 1991 FDEP and State contractor conduct CERCLA SI December 1994 CAR received by FDEP. March 1998 0 gallons of free product and 3,900 gallons of

h Annual GW Monitoring Reports. March 2008 Site r 2009 Status Report of Site Activities. 2010 – March er 2011 Well Installation and GW Sampling Report. Summary, Site Assessment complete. RP has talled. FP removal and long-term GW monitoring

ly WP. March 2014 GW Monitoring Report. November P issues RAP Approval Order. April 2016 GW FDEP. August 2018 FDEP requests RAP Modification FDEP CD Summary: RP has performed an IRA Pilot Study/RAP. Expecting RAP Mod in 2019 to

deral or State action.

| MGP Address, Off-site MGP Impacted Property Address & Current Activities/Businesses | District | EPA ID# FDEP Site ID # MDERM-RER Id # Folio # | Gas Type & Years of MGP Operation | CERCLA Assessments (PAs, APA's,SIs, etc.) | Comments: Re: EPA, County and/or State Enforcement, Activities, Major Documents and I |
|--|----------|---|---|---|--|
| SW corner of S. Florida & Beresford Ave int. Deland, FL 32720-7382 Currently: Now Alamo Car Wholesaler Business | | | | EPA Recommendation: NFRAP | |
| Deland Hasche Gas Plant 401 North Stone Street Deland, FL 32720-4013 Currently: As of October 2013, now a communications company location. | CD | FL0001897990 COM_313314 | Hasche N/A | PA-7/1997 SI- 4/1998 EPA Recommendation: NFRAP | Site Archived by EPA. Hasche gas process. No MGP contaminants detected. No further fed |
| Orlando Gasification Plant 600 Block West Robinson St. Orlando, FL 32801-1724 Site consists of two parcels separated by West Robinson Street. North parcel contained most of MGP processing apparatus (retort building, tar well, naphthalene scrubbers, purifiers, tar storage tank, heavy & light oil tanks, tar/water tank, etc.). The south parcel contained the Gas Holders. Currently: TECO/Peoples Gas, some commercial and vacant properties. | CD | FLD984169235 COM_241803 | W, CWG 1888 - 1960 | PA-7/1989 SI- 2/1991 SIP 1992 ESI- 5/1996 ESI 2 9/2002 EPA Recommendation: FA* | EPA Lead. *Superfund Alternative Site. 2000 to 2009 - June 2001 Non-NPL PRP search completed. January 2002 EPA AOC execut &FPC. January 2003 Draft RI/FS Phase 1 RI soil and GW sampling complete. June 2003. I executed for RI/FS with PGS, Atlanta Gas Light Co &FPC. December 2003 RI/FS WP. Ma Investigation at Former Plant Site. March 2005 Phase II RI Work plan submitted to EPA I delineate coal tar contamination in Floridan aquifer. Drainage wells may have provided op II RI fieldwork completed. September 2008 Human Heath and Ecological Risk Assessment Upper Floridan Aquifer GW Monitoring Plan. August 2009 Final Human Heath and Ecolo Revised Upper Floridan Aquifer GW Monitoring Plan. 2010 – 2012 - March 2010 SL Gas Sampling QAPP. July 2010 Final Upper Floridan Aquifer monitoring plan approved. March 2011 Revised Human Heath and Ecological Risk Assess November 2011 Draft Preliminary FS for OU-1. 2011-2012 determination of OU-1 cut lines Installation/Sampling of Surficial Aquifer MWs. January 2013 Draft FS Report for OU-1 (and was under EPA review; FDEP had no comments. PRPs continuing RI of OU-2 (Deepw Update: PRPs continuing remedial investigation of OU-2 (deepwater aquifer). June 2013 E EPA issued cleanup plan/ROD for OU-1 & completed legal negotiations with PRPs to imple 2014 Phase II Historic Well Investigation WP/Draft Report for OU-2. September 2015 Ren Solidification Treatability Study WP and Draft Field Sampling & Analysis Plan for OU-1. P Draft FS for OU-2. November 2016 Upper Floridan GW Monitoring Plan. Agust 2017 UP reliminary Design Report for OU-1. June 2017 Draft Pilot Study WP for OU-2. August 207 Supporting Documentation Report for OU-1. August 2017 FDOH issues Public Health Asse WP for Parcels 4 – 6 of OU-1 issued. February 2018 OU-2 Site Wide GW Monitoring Plan. Biosparging & Soil Vapor Extraction Testing WP for OU-2 May 2018 Biosparging & Su Y Final Pilot Study WP for OU-2 received. July 2018 Remedial Action WP for OU-1 and Final |

d Milestones.

ederal or State action.

cuted for ESI-Phase 2 with PGS, Atlanta Gas Light Co 3. RI/FS neg. started. September 2003 EPA AOC March 2004 EPA Fact Sheet on Environmental A December 2006 Phase II RI WP Addendum to open conduit to Floridan aquifer. January 2008 Phase ent report. January 2009 Final RI report. April 2009 ological Risk Assessment report. December 2009

ifer GW Monitoring Plan. August 2010 SL gas and GW ssment report. April 2011 GW Monitoring Report. nes was negotiated. November 2012 WP for 1 (Site SLs & upper-level aquifer) had been submitted pwater aquifer).

BEPA issues Proposed Plan for OU-1. September 2013 uplement the cleanup activities. March 2014/September emedial Design WP for OU-1. In-Situ Stabilization & 1. October 2015 Draft OU-1 Pre-Construction GW Pre-Construction GW Monitoring Plan. April 2016 7 Upper Floridan GW Monitoring Report. March 2017 2017 Barrier Wall Key Depth Evaluation & .ssessment for site. December 2017. Surface SL Removal an. SL removal conducted in OU-1 in 2018. March 2018 . Vapor Extraction Testing Report issued. May 2018 inal Draft Design OU-1. Construction QAPP for OU-1.

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|---|----------|---|---|---|--|
| | | | | | August 2018 Meeting with EPA for comments to finalize RAP Final Design (Barrier Wall a Final Design Report for OU-1. No comments from FDEP on either final design or Pilot Stu 2018, PRPs completed the remedial design for OU-1. Early remedial action activities to add 6 are ongoing. Remedial Action started. Remedial action field activities to address the co contaminated GW from the upper-level aquifer will begin in early 2019. Robenson Joseph joseph.robenson@epa.gov |
| Peoples Gas/West Florida Natural Gas Aka: Ocala MGP 613 NE Osceola Ave. (Behind 206 N.E. 9 th Street) Ocala, FL 34470-5243 Currently: Occupied by a company specializing sales of new and surplus metals (i.e. scrap metal yard). | CD | FLD982119729 COM_134179 | W, CWG 1899 – mid1950's | PA-8/1987 PAR-6/1989 Desk-top SI- 1/1991 SIP-Level B 1/1995 ESI 1/2000 EPA Recommendation: FA* | Superfund Alternative site*. EPA lead. 1980 to 1989 - January 1988 West Florida Natural Gas Co. and FDER entered CO. June 1 1990 to 1999 - June – July 1990 PRP funded IRA SL removal (10,000 tons MGP impacted S June 1991 WP to Investigate a DNAPL at Former MGP. March 1994 Supplemental CAR r Additional GW Investigation. July 1998 Additional GW Sampling Letter Report. June 1992 2000 to 2009 - June 2001 AOC for RI/FS signed between PRP and EPA. March 2002 HRS 6 RI/Preliminary FS issued to EPA. 2005 RI fieldwork conducted. October 2007 Draft Huma February 2008 RI report complete/approved by EPA. Site Assessment complete. March 200 complete. October 2008 Revised 1 Human Health and Ecological Risk Assessment Report. Risk Assessment and FS reports submitted to EPA. Draft FS also submitted to EPA. 2010 – 2013 - Concrete cap installed and Restrictive Covenant Recorded. May 2010 Bench-Geophysical Investigation Report. March 2011, November 2011, January 2012 Supplement Oxidant Interaction & Buffering Capacity Report. Concrete cap installed. Treatability stude Update: April 2014 to January 2018. Monthly Progress Reports. June 2014 Final Treatability GW Sampling Scope of Work proposal. August 2017 Tech. Impracticability Evaluation Report. No comment the RI work for site. It is anticipated that the RI/FS will be completed in 2019 and the ROD ROD, the PRP will develop the design documents (drawings and specifications) to address taget 1. |
| Sanford Gasification Plant Aka: Florida Public Utilities 830 West 6 th Street (both sides of Street) Sanford, FL 32771-2435 Site consists of two parcels separated by West 6 th Street. South parcel contained most of MGP processing apparatus | CD | FLD984169193 COM_160171 | W, CWG 1880's to 1952 | PA-3/1990 SSI-Phase II 6/1991 SI- 1/1992 SIP 4/1994 ESI-6/1997 EPA Recommendation: FA* | EPA lead. Superfund Alternative Site*. MGP impacts to Cloud Branch (aka by locals "Gas 1990 to 1999 - October 1991 Preliminary Investigation of Residual Coal Tar Materials in t CAR. July 1997 EPA Requests from FDEP "Governors Letter" for written request that the funded. Special Notice Letters sent to FPUC, Florida Power Corp., FP & L, Atlanta Gas Li 1997 HRS package completed. April 1998 AOC for RI/FS signed. July 1998, September 199 Draft Baseline Risk Assessment; draft FS OU-1 (Impacted SLs) and Final RI Reports recei Report. |

d Milestones.

Il and GW remedial design) for OU-1. September 2018 Study. EPA comments being addressed. As of September address the contaminated surface SL on parcels 4, 5, & contaminated SLs (Parcels 1, 2, & 3) and the sh (404-562-8891) is the EPA Remedial Project Manager

1988 Final CAR. June 1989 CARA.

d SLs). August 1990 Interim Remediation Final Report. R received by FDEP. February 1997 Report of 999 FDEP asks EPA to take enforcement lead.

S documentation package complete. June 2004 Draft man Health and Ecological Risk Assessment Report. 2008 RI report approved by EPA. Site Assessment t. July 2009 Revised 2 Human Health and Ecological

ch-Scale Treatability Study WP. March 2012 ental FS WPs. May 2012 Lab Evaluation of Natural tudies on-going. ROD should be completed in FY 2014.

bility Study submitted. March 2017 Comprehensive Report for Waiver of GW ARARs. February 2018 lents from FDEP. EPA reviewing. PRPs are continuing OD for the site will be issued. After the EPA issues the ss the site contamination. Robenson Joseph (404-562epa.gov_are the EPA Remedial Project Managers.

Gas Creek") and outfall area of Lake Monroe.

n the Cloud Branch Drainage Report. February 1994 the site be placed onto the NPL. Site will be PRP Light Co. & City of Sanford (Sanford Group). August 1998 Draft and Revised RI/FS WPs issued. July 1999 ceived. October 1999 Revised Baseline Risk Assessment

| MGP Address, Off-site MGP Impacted Property Address & Current Activities/Businesses | District | EPA ID# FDEP Site ID # MDERM-RER Id # Folio # | Gas Type & Years of MGP Operation | CERCLA Assessments (PAs, APA's,SIs, etc.) | Comments: Re: EPA, County and/or State Enforcement, Activities, Major Documents and D |
|--|----------|---|---|--|---|
| (retort building, gas producers, scrubbers, purifiers, a gasometer tank, gas holder, oil tanks, etc.). The north parcel contained a gas holder and oil tank. Currently: Vacant Land (both sides of Street) | | | | | 2000 to 2009 - January 2000 Revised 2 Baseline Risk Assessment and Final FS OU-1 Repoil EPA ROD for OU-1 completed. September 2000 FS Report for OU-2 (Impacted GW) issue OU-2 received. February 2001 Ecological Risk Assessment Step 1 for All Media & Steps 2 A completed. 1st ROD - OU 1 SL (excavate w/ thermal treat). OU 2 GW (NAM-10 years). Jun Draft DSAR. October 2002 Ecological Risk Assessment WP -OU-3 (Cloud Branch Creek at Final DSAR in December 2002. Additional SL contamination (4 times original) found. Febr Report for OU-1 issued. February 2004 Draft Ecological Risk Assessment for OU-3. Decem OU-1 Report. January 2005 Revised Ecological Risk Assessment for OU-3. Decem OU-1 Report. January 2005 Revised Ecological Risk Assessment for OU-3. Decem OU-1 Report. January 2005 Revised Ecological Risk Assessment for OU-3. Decem OU-1 Report. January 2005 Revised Ecological Risk Assessment for OU-3. Decem OU-1 Report. January 2005 Revised Ecological Risk Assessment for OU-3 report. February Revised In-Situ Solidification Treatability Study OU-1 WP. September 2006 OU 1 ROD an Branch Seds) Eco. Risk completed. ROD amendment for OU 3 completed. April 2007 In-Si Remedial Design WP OU-2 & OU-3. January 2009 Pilot Test WP for In-Situ Stabilization/S Design Report for OU-1, OU-2 and OU-3. Consent Decree. In situ solidification (OU 1, 3) is Pilot Test WP For In-Situ Stabilization/Solidification OU-1, OU-2 & OU-3. 2010 – March 2013 January 2010 Final Design Addendum No. 1 For OU-1, OU-2 & OU-3. Revised GW Monitoring Plan. RA activities complete 1st quarter of 2011. June 2012 Semi- Revised GW Monitoring Plan & QAPP. September 2012 Final Remedial Action Report for Monitoring Report-2012. Long term GW monitoring is ongoing. EPA is placing institutiona installation. EPA plans to complete first 5-Year Review in 2013. February 2013 PRPs enter Update: December 2013, March 2014 & December 2015 Annual GW Monitoring Report is long term GW monitoring is ongoing. August 2016 Remedial Action Report for OU-2. De |
| Cascade Park Gasification Aka: Tallahassee MGP (SW corner of Gadsden and Bloxham Streets Tallahassee, FL 32301 Currently: Former MGP: western part of renovated Cascades Park including Retention Pond (Boca Chuba Pond), Picnic Tables and Fitness trail. | NWD | FLD981931959 COM_67392 BF370001000 | C, W, CWG 1880's – 1959 | PA-12/1987 SI-2/1989 NUS ESI Data 5/1989 SIP 5/1993 ESI-5/1997 EPA Recommendation: FA* | EPA lead. Superfund Alternative site*. Includes adjacent landfill (Cascade Landfill). Form bordered by Cascade Creek. Following the razing of MGP and Centennial Field, Cascade (1990 to 1999 - June 1990 CO executed between FDER and FDNR. April 1994 Phase I CAR EPA signed. 2000 to 2009 February 2002 EE/CA completed; Human Health RA complete and Ecolog Fact Sheet. April 2002 Environmental Effects of Post MGP Construction Activities Cascad Cascades Park. September 2004 AOC for Non-Time Critical Removal Action between COT WP for Soil Removal activities completed in 2006. Approximately 347.59 tons of Sed remover removed from shallow and deep excavations. GW NAM ongoing. PRP continues to fund site part of Blueprint 2000 project, site to be made into a large public park w/ trails, amphitheapproximately 2000 project. |

d Milestones.

ports received. February 2000 FS for OU-1. July 2000 ued. January 2001 EPA Proposed Plan Fact Sheet for 2 & 3 for SL issued. June 2001 ROD for OU-2 une 2002 DSAP fieldwork completed. August 2002 and Cloud Branch Creek Delta in Lake Monroe) with ebruary 2003 Final Remedial Alternatives Evaluation ember 2004 Proposed SL Cut-Lines for Remediation of ary 2006 Draft Focused FS Report OU-3. May 2006 amended (Solidification/Stabilization). OU 3 (Cloud -Situ Solidification Treatability Study. September 2008 n/Solidification OU-1, OU-2 & OU-3 and Preliminary) is the remedial strategy for site. June 2009 Revised 009 Draft Final Design Report for OU-1, OU-2 & OU-3.

3. October 2011 GW Monitoring Plan. December 2011 ni-Annual GW Monitoring Report. August 2012 for OU-1/OU-3. December 2012 Annual GW onal controls to restrict digging and GW well ters into Consent Decree with EPA.

s issued. June 2016 Institutional Controls put in place, ecember 2016 Draft Five Year Review/2016 Annual il 2017 Bi-annual GW Sampling Report received. July ng in the SL stabilization remedy area and restrict GW for Reuse Sanford Mixed Use Property Fact Sheet. 2017 tamination at the site with EPA and FDEP oversight. W COCs are below health-based cleanup levels. Also, helby Johnston (404-562-8287) johnston.shelby@epa.gov

rmer MGP was adjacent to Centennial Field and e Creek was rerouted further west.

AR. November 1998 AOC for EE/CA between COT &

logical RA completed. March 2002 EPA Proposed Plan ade Park. September 2003 Draft RAP for East OT & EPA signed. November 2005 Removal Action noved from Cascade Creek and 84,551.69 tons of SL site cleanup, monitoring and oversight activities. As neater, a baseball field and retention pond.

| MGP Address, Off-site MGP Impacted Property Address & Current Activities/Businesses | District | EPA ID# FDEP Site ID # MDERM-RER Id # Folio # | Gas Type & Years of MGP Operation | CERCLA Assessments (PAs, APA's,SIs, etc.) | Comments: Re: EPA, County and/or State Enforcement, Activities, Major Documents and I |
|--|----------|---|---|--|---|
| Cascade Landfill Aka: Old Abandoned City of Tallahassee Landfill, Tallahassee, FL 32301 "Former Cascades Sinks" area south of RR and former Cascade Park MGP Currently: southern part of renovated Cascades Park including parking area and Capital Cascades Trail. | NWD | FLD984169177 COM_67392 | N/A MGP Dump | PA – 5/1989 SI-2/1989 NUS ESI Data 5/1989 ESI-5/1997 EPA Recommendation: FA* | 2010 – March 2013 - April 2010 COT began rebuilding Cascade Park which includes trails fountains, a war memorial, and a state-of-the-art amphitheater for concerts and communit COT currently performing a treatability study & will be sending a report of findings to EP schedule, a FS study will be completed by November 8, 2013. EPA hoped to issue a ROD fo Update: September 2013 In-Situ Chemical Oxidation Field Scale Treatability Study Report Construction Plan issued. March 2014 COT officially opened Cascade Park. September 207 August 2015 Supplemental NAM GW sampling report. October 2016 Annual NAM GW sa Involvement Plan and EPA also issues Proposed Plan/Proposed Plan Fact Sheet for site. O EPA extended Proposed Plan public comment period to mid-November 2018. Final ROD Spalvins (404-562-8938) spalvins.erik@epa.gov is now the EPA RPM. EPA lead. Superfund Alternative site*. Includes adjacent MGP. Part of site also referred to wastes. Also, ash, slag and purifier waste from adjacent MGP disposed into Landfill. Nover Landfill. February 1991 COT Preliminary Technical Report. August 1991 PCAR. June 195 EE/CA between COT & EPA signed. See Cascade Park Gasification Comments above for a |
| Pensacola Gasification Plant Aka: Pensacola Manufactured Gas Plant Cervantes & N Hayne Streets Pensacola, FL 32503 Currently: Majority of FMGP on north side of Cervantes St. under I-110 overpass & Exit 2 off ramp; abutting the Louisville & Nashville RR. One Gasometer was located under I-110 overpass just south of Cervantes Street on FDOT property adjacent to City Police Station. | NWD | FLD984169250 COM_69033 | W, CWG 1880's 1932 | PA-1/1990 Desk-top SSI-1/1992 SIP 7/1993 ESI- 1/2000. EPA Recommendation: OCA, State Lead Cleanup | State lead through FDEP NWD District.1990 to 1999March 1991 PCAR. December 1993 CAR. March 1996 MOP issued & FDE1997, September 1998 MOP Reports.2000 to 2009 September 2001 MOP – 2001 Sampling Report. July 2002 MOP – 2002 SamReport. June 2004 MOP – 2004 Sampling Report. April 2005 MOP – 2005 Sampling ReportSeptember 2006 and May 2007 Proposals for Revised MOP received by FDEP. May 2007 NSampling Report. September 2008 MOP Modification Proposal Addendum to FDEP. March2010 – March 2013 - November 2010 NFA Proposal, for conditional closure, received by Fcontrols appear adequate. NWD letter provisionally approves NFA. As of March 2013 sumMonitoring only and natural attenuation ongoing.Update: November 2015 Off-site SL sampling Proposal for RMO III conditional closure report for off-site sampling received. March 2018 A site-specific MOU executed by DOT at |

d Milestones.

ils, playgrounds, a 16-foot waterfall, interactive nity events. 2012 COT performing initial RI activities. EPA in mid-June 2013. If COT maintains current for the site by September 30, 2014.

ort issued. October 2013 Environmental Management 2014 Boca Chuba Pond Liner Installation Report. sampling report. June 2018 EPA Community October 2018 FDEP provided approval of Draft ROD. D likely in December 2018 or January 2019. Eric

I to as "Hobo Hideout". Old automobile parts, C&D vember 1986 FDER ORT investigation Report of 1993 Supplemental Report. November 1998 AOC for or applicable enforcement, documents and activities.

DEP issue MOP Approval Order. October 1996, June

ampling Report. July 2003 MOP – 2003 Sampling bort. May 2006 MOP – 2006 Sampling Report. 7 MOP – 2007 Sampling Report. April 2008 MOP 2008 arch 2009 MOP 2009 Sampling Report.

FDEP. April 2011, FDEP informs PRP NFA proposed ummary, Assessment complete. No SL removal. GW

e received. February 2016 SL Data Analysis Letter and DEP for the Site. May 2018 Conditional SRCO

| MGP Address, Off-site MGP Impacted Property Address & Current Activities/Businesses | District | EPA ID# FDEP Site ID # MDERM-RER Id # Folio # | Gas Type & Years of MGP Operation | CERCLA Assessments (PAs, APA's,SIs, etc.) | Comments: Re: EPA, County and/or State Enforcement, Activities, Major Documents and |
|---|----------|--|---|--|--|
| Bradenton Gasification Plant Aka: Bradenton Manufactured Gas Plant Aka; Southern Gas and Electric Co. 705 3 rd St. West Bradenton, FL 34205 Currently: City of Bradenton Fenced, vacant land adjacent to City Carpentry Shop, Pumping Station & Elevated Water Tank. | SWD | FLD984169185 COM_65180 349-1 BF411301000 BF411301001 | CWG 1927 to 1952 | PA-1/1990 SI- 8/1993 IA- 3/1995 EPA Recommendation: NFRAP | issued to RPs, with dig restriction, water use restriction, engineering controls, digging restrand dewatering activities. Site Archived by EPA 3/95. State lead through FDEP SWD. 1990 to 1999 - August 1990 Environmental Assessment. December 1994 PCAR received by 5,168.64 tons of MGP impacted SL excavated and removed for thermal treatment. August WP to Complete Contamination Assessment Task received by FDEP. December 1997 CAR Source Removal Report. July 1999 Source Removal Report Addendum. October 1999 Add 2000 to 2009 - April 2000 Supplemental RI WP. December 2000 Supplemental RI Report. RI Report. January 2002 Revised RI WP. June 2002 RI Report. April 2003 Storm Drain In Drain Investigation Report and RI Report Addendum. April 2004 Revised RI Report Adde GW & Storm Drain Sampling Report. April 2005 GW Sampling Results and FP Removal Report-May 2005 event. February 2006 Storm Drain M FP Removal Report-January & February 2006. June 2006 Site Summary Reportsorm Drain Monitoring Results -2006 and GW Sampling Results and FP Removal Report – June to August 2007. January 2007 GW Sampling Results and FP Removal Report – June to August 2007 Storm Drain Monitoring Results -2006 and GW Sampling Results and FP Removal Report for November 2007. March 2008 Storm Drain Monitoring Results and FP Removal Report for November 2007. March 2008 Storm Drain Sampling Results and FP Removal Report for November 2007. March 2008 Storm Drain Sampling and Vapo SARA. September 2008 GW Sampling Results and FP Removal Report for November 2009 GW Sampling Results and FP Removal Report for November 2009 GW Sampling Results and FP Removal Report for November 2008 GW Sampling Results and FP Removal Report for November 2008 GW Sampling Results and FP Removal Report for November 2008 GW Sampling Results and FP Removal Report for November 2008 GW Sampling Results and FP Removal Report for November 2008 GW Sampling Results and FP Removal Report for November 2008 July 20 removed. October 2009 GW Sampling Results and FP Remo |
| Central Florida Gas Co. Gasification Plant Aka Winter Haven MGP 1705 7 th St. | SWD | FLD984169227 COM_65250 | CWG 1929 to 1953 | PA-5/1989 Desk-top SI- 5/1991 SIP 7/1994 | excavation and site restoration. December 2015, FDEP approved NFA with conditions proprecorded for the site and adjacent impacted property owned by the City of Bradenton. Ma 2017 Amended BSRA issued and Conditional SRCO executed. State lead through FDEP SWD. MGP impacts in Lake Shipp located immediately west of s needed. However, EPA assigned OCA. State action under FDEP SW Dist. 2/90 1980 to 1989 - Preliminary Site Assessment Summary Report. |

d Milestones.

striction, prior authorization for storm water facilities

by FDEP. July 1995 IRAP. October 1996 IRAR issued. st 1997 Report of Additional assessment Activities and AR. September 1998 Focus RAP issued. June 1999 dditional Assessment Actions Report.

rt. September 2001 RI WP and Revised Supplemental Investigation Report. October 2003 Revised Storm Idendum. June 2004 Field WP – 2004. February 2005 al Report-February 2005 event. July 2005 GW Monitoring Results – 2005; GW Sampling Results and g and FP Recovery events. March 2006 GW Sampling eport (August 1990 to December 2005). September 2006 ort-March to May 2006. December 2006 GW Sampling sults and FP Removal Report-September to November ilts and GW Sampling Results and FP Removal Report t for May 2007. February 2008 GW Sampling Results apor Monitoring Results for January 2008. July 2008 SR for Vadose Zone SL Impacted by As and CN WP. 2009 ISR Report 541 tons of MGP impacted SL

ovember 2009. September 2010 GW Sampling Report 013, continuing with contamination assessment, need and plan is for additional work off-site. As of January ge.

rea Designation Resolution from City of Bradenton. -line sampling, GW sampling, FP gauging, SL roposal. Restrictive covenants were executed and March 2017 Declaration of Restrictive Covenant. May

f site. Site Reassessment ongoing by EPA. ESI start

| MGP Address, Off-site MGP Impacted Property Address & Current Activities/Businesses | District | EPA ID# FDEP Site ID # MDERM-RER Id # Folio # | Gas Type & Years of MGP Operation | CERCLA Assessments (PAs, APA's,SIs, etc.) | Comments: Re: EPA, County and/or State Enforcement, Activities, Major Documents and N |
|---|----------|---|---|---|---|
| Winter Haven, FL 33880-4374 Currently: Central Florida Gas Co./Chesapeake Utilities LP Storage & Shops | | | | EPA Recommendation: OCA, State Lead Cleanup | 1990 to 1999 - July 1990 CAR issued. July 1994 FS. August 1995 GW Sampling Results (Ju Assessment Report. May 1996 AS/SVE Pilot Study WP. October 1997 NAPL Investigation Investigation Results Letter Report. 2000 to 2009 - January 2000 AS/SVE Pilot Study report. February 2001 RAP received by F Letter report. April 2002 Status of RAP Implementation BS/SVE Report. July 2002 WP for 2003 First Semi-Annual RAP Implementation Status Report. June 2003 CARA received by Implementation Status Report. May 2004 Third Semi-Annual RAP Implementation Status Implementation Status Report. June 2006 Seventh Semi-Annual RAP Implementation Status Implementation Status Report. June 2007 Ninth Semi-Annual RAP Implementation Status Implementation Status Report. June 2008 Eleventh Semi-Annual RAP Implementation Status Implementation Status Report. July 2009 Thirteenth Semi-Annual RAP Implementation Status Implementation Status Report. July 2009 Thirteenth Semi-Annual RAP Implementation Status Report. June 2010 Fourteenth Semi-Annual RAP Implementation Status I June 2010 to March 2013 - January 2010 Fourteenth Semi-Annual RAP Implementation Status I June 2011 Seventeenth Semi-Annual RAP Implementation Status Report. December 2010 Sixt Report. June 2011 Seventeenth Semi-Annual RAP Implementation Status Report. December 2010 Sixt Report. June 2011 Seventeenth Semi-Annual RAP Implementation Status Report. December 2010 Sixt Report. June 2011 Seventeenth Semi-Annual RAP Implementation Status Report. December 2010 Sixt Report. June 2012 Seventh Semi-Annual RAP Implementation Status Report. June 2013 - January 2013 FDEP notes RAP not working and requests a RAP m significant cleanup, while some northern and southern areas are still contaminated and hav delineated. Update: January 2014, June 2014, January 2015, June 2015, February 2016, July 2016, Jan Semi-Annual RAP Implementation Status Report. BS/SVE system operation except during RAP Implementation Status Report received by FDEP. As of December 2018, MGP Site In<!--</td--> |
| Clearwater Coal Gasification Plant 400 Myrtle Street Clearwater, FL 33755-4433 Currently: FMGP- Clearwater Gas Systems Off-site – MGP related GW plume extends onto Pinellas Co DOH | SWD | FLD984168088 COM_65207 BF529701006 529500093 | CWG 1925 to mid-1950's | PA-10/1988 SI Phase II 6/1990 EPA Recommendation: NFRAP | Site Archived by EPA 7/90. State lead through FDEP SWD District. City of Clearwater Inc 1990 to 1999 – January 1997 Interim CAR. January 1998 Status Report for December 1997 March 1998 Status Report for February 1998. April 1998 Status Report for March 1998. Ju Report for June 1998. August 1998 Status Report for July 1998. October 1998 Status Report Report for October 1998. February 1999 Status Report for January 1999. December 1999 C 2000 to 2009 – May 2001 Status Report for April – May 2001. July 2002 2002 GW Sampling Report for July – October 2002. October 2002 Supplemental Assessment WP received by F January 2008 – FDEP offered agreement to forego additional on-site vertical GW delineation wells (CAR will be approved); PRP agreed with this and can now proceed to RAP stage. M GW Sampling Report (June 2009). |

d Milestones.

June 1995) Letter report. April 1996 Summary n and SL Sampling WP. May 1999 Additional Field

y FDEP. September 2001 SL & Sed Sampling Results For Additional Assessment Activities received. May by FDEP. December 2003 Second Semi-Annual RAP is Report. December 2004 Fourth Semi-Annual RAP atus Report. December 2006 Eighth Semi-Annual RAP us Report. December 2007 Tenth Semi-Annual RAP tatus Report. December 2008 Twelfth Semi-Annual ation Status Report

s Report. April 2010 SL Excavation & IRAP issued. ixteenth Semi-Annual RAP Implementation Status aber 2011, June 2012, November 2012, June 2013 Semi-P enter into CO. Remedial action underway for the ontota in Lake Shipp, and risk assessment is ongoing. An sues. Using bio-sparging and periodic SVE for P modification. Some areas of MGP have seen ave offsite contamination plumes to be further

anuary 2017, June 2017, December 2017 & May 2018 ing GW sampling events. December 2018 Semi-Annual In compliance with FDEP.

ncinerator was located to east of MGP.

97. February 1998 Status Report for January 1998. June 1998 Status Report for April - May 1998 Status port August-September 1998. November 1998 Status 9 CAR.

ing Summary Letter report. October 2002 Status FDEP. May 2003 Supplemental Assessment Report. ation if PRP continues to monitor perimeter Floridan May 2008 GW Results Spring 2008 Report. July 2009

| MGP Address, Off-site MGP Impacted Property Address & Current Activities/Businesses | District | EPA ID# FDEP Site ID # MDERM-RER Id # Folio # | Gas Type & Years of MGP Operation | CERCLA Assessments (PAs, APA's,SIs, etc.) | Comments: Re: EPA, County and/or State Enforcement, Activities, Major Documents and |
|--|----------|---|---|---|---|
| | | | | | 2010 to March 2013 – February 2010 GW Results Letter report. August 2010 Status Repor report. October 2010 October 2010 Status Report -Additional Assessment Field Activities I Residuals Using In-Situ Chemical Oxidation Report. February 2011 FDEP approval of Pid- -October 2011 Additional Assessment Field Activities/Second Quarterly GW Monitoring Re 2012 Third Set of Quarterly GW Monitoring Results Letter report. April 2012 Status Repor Monitoring Results Letter report. As of March 2013 SWD Summary - Delineation of vertion not been completed. Delineation of SL contamination not completed. Add. Assessment (inc proposed. Executed CO (OGC #93-0230). April 2003-Site referred back to FDEP Federal I evaluation. August 2003 HRS reevaluation conducted using new information. Based on re- evaluation. January 2008 – FDEP offered agreement to forego additional on-site vertical G Floridan wells (CAR will be approved); PRP agreed with this and can now proceed to RAI allow University of Waterloo (UW) to conduct pilot test remediation using in situ chemical Update: May 2014 UW Laboratory Treatability Evaluation/Push-Pull Test Results & Pilot Study WP to allow University of Waterloo to conduct pilot test remediation using in situ chemical Update: May 2016 Status Report including: source area characterization & baseline conditio short/long term monitoring, . December 2017 BSRA executed. March 2018 RAP received b July 2018 Quarterly O & M Report, 2 nd Quarter, Year 1. City of Clearwater has begun site approximately 3-year scope of work including storm water pond installation, associated de with FDEP. |
| Lakeland Gasification Plant Aka: Lakeland MGP Aka: Peoples/TECO Gas System 445 Kathleen Rd. (now 445 Peoples Lane) Lakeland, FL 33815-1315 Currently: Still TECO Peoples Gas/Morningstar Fleet Services and includes part of Peoples Lane ROW. Off-site: MGP impacts to Kathleen Road (constructed 1968) & portion of nearby Florida Tile | SWD | FLD984169243 COM_65245 | CWG 1916 to 1959 | PA-1/1990 SI- 9/1992 ESI- 9/1998 Draft Reassessment -7/2000 EPA Recommendation: OCA, State Lead Cleanup | State lead through FDEP SWD District. 1990 to 1999 – September 1997 Draft Trenching Assessment Report and Source Removal N Removal and Additional Source Removal Activities. Initially, approximately 5,000 tons of 1998 EPA completes Aerial Photographic Analysis of Lakeland Gasification Plant site. July source removals eliminated a total of 6,800 tons of contaminated SL, no GW contamination Assessment report. December 1999 FDEP Site Screening Superfund (CERCLA) subsection borings/trenching for MGP impacts on nearby Florida Tile property and Kathleen Rd RO 2000 to 2009 – September 2000 Comparison of EPA Study to Actual Field Work and Clear possible MGP impacts on Florida Tile property and Kathleen Rd ROW to FP&L. June 200 warranted. January 2001 FDEP notifies EPA of findings of Florida Tile Comparison Repo residuals from area owned by Florida Tile. April 2001. FDEP notifies Florida Tile no furth Comparison Report shows removal of MGP impacted soils occurred during construction o Notification letters issued Data from a 2007 report demonstrates area was sufficiently re-w impacts would likely have been removed. In 2008, Kathleen Road was expanded, and re-ro Blvd. was constructed. New road to west is now People's Lane. As of March 2013, Summa Kathleen Road. Site Reassessment ongoing by EPA. Little progress finalizing the assessment from an offsite area, but this has not occurred. FDOT does not have current plans to removed present, but FDEP doesn't have any way to gain assurance that it won't be removed in the |

d Milestones.

oort – July 2010 Additional Assessment Field Activities es Letter report and Treatment of Former MGP Pilot Study (Tasks #s 1 &2). October 2011 Status Report g Results report. January 2012 Status Report January eport February 2012 Fourth Set of Quarterly GW tical and horizontal extent of GW contamination has ncl. vertical delineation) required before a RAP can be l Programs Section for possible CERCLA rere-evaluation, site recommended for further CERCLA GW delineation if PRP continues to monitor perimeter AP stage. FDEP approved a 4-task Pilot Study WP to al oxidation using sodium persulfate. In compliance.

ot-Scale Study WP. FDEP approved a 4-task Pilot chemical oxidation using sodium persulfate. tions, Bench scale/Push-Pull Tests, treatment & l by FDEP. May 2018 ISR Plan Approval from FDEP. tite redevelopment. The redevelopment is an dewatering, and GW monitoring. Site is in compliance

Il WP. July 1998 Summary of October 1997 Source of MGP impacted SL excavated and removed. June uly 1998 Phase II Source Removal conducted. Both ion was encountered. November 1999 Residual Risk ion provides SWD with suggested additional SL COW.

anup. April 2000 FDEP SWD provides comments Re: 2000 FP&L notifies FDEP that Kathleen Rd borings not port. FDEP approved source removal of coal tar ther assessment of MGP related waste necessary since a of Northwest Reservoir. October 2005 Off-site -worked, re-graded and re-paved that any remaining routed north and east of the site, and George Jenkins mary Source Removal by FP & L in 1997-98. Tar under nent portion of this site. Request made to collect a GW move the portion of Kathleen Road where the tar is still he future. Still working with FDOT on that aspect.

| | | | Car | | |
|--|----------|---|---|--|--|
| MGP Address, Off-site MGP Impacted Property Address & Current Activities/Businesses | District | EPA ID# FDEP Site ID # MDERM-RER Id # Folio # | Gas Type & Years of MGP Operation | CERCLA Assessments (PAs, APA's,SIs, etc.) | Comments: Re: EPA, County and/or State Enforcement, Activities, Major Documents and I |
| Peoples Gas Site/ Florida | | | CWG | PAR 5/1988 | SWD files indicate last correspondence from FPL was request for meeting to discuss scope GW remediation system in place. In 2006 FDOT discussed their bypass construction on par 2010 to March 2013 Last communication regarding site was emails with Jim McCarthy, P. revisit site enforcement history. Update: 2013 – 2014 Meetings with various entities were held, file review and historic revie inquiry to FDOT Re: any SL removal or sampling of Kathleen Road project. September 20 since the area was sufficiently reworked, regraded and repaved during Kathleen Road project. Road re-grading has resulted in run-off swales, where road run-off would likely run to be indicative of contamination from former MGP. FDEP closed the file in September 2 State lead through FDEP SWD District. FMGP was fronted by Booker Creek. |
| Peoples Gas Site/ Florida Suncoast Dome/"Thunder Dome" Aka: "Old Gas Plant" Now 1 Tropicana Drive, St. Petersburg, FL 33705-1703. Most of FMGP was located south of former 3rd Ave South on either side of former 12th Street South. FMGP also included Gas Holders north of Former 3rd Ave. South between Former 12th and 14th Aves. South. Currently: Tropicana Field Complex (Stadium and Parking Lots) - Home of the MLB Tampa Bay Rays baseball team as well as hosting concerts. | SWD | FLD981930340 COM_65236 | 1914 to 1962 | FAR 5/1988 SI- 2/1990 EPA Recommendation: OCA, State Lead Cleanup | State fead through FDEF SWD District. FMGF was fronted by Booker Creek. 1980 to 1989 – August 1987 Discharge into Booker Creek/Site Conditions Florida Suncoast 1988 CARA issued. July 1988 CO executed between City of St. Petersburg and FDER. Aug 1989 Draft FS Addendum report. March 1989 Draft RAP Detention Pond 3. May 1989 Risl received by FDER. June 1989 Revised FS report. July 1989 Interim Excavation and Evacus Design Report. August 1989 Revised Risk Assessment Report and Site Rehabilitation Level OGPS Remediation Project. November 1989 RAP-SL Remediation. December 1989 Analyt 1990 to 1999 – January 1990 Analytical Summary Report for December 1989. February 19 February 1990. April 1990 Analytical Summary Report for December 1989. February 19 February 1990. April 1990 Analytical Summary Report for December 1989. February 19 February 1990. April 1990 OGPS SL Remediation report. January 1991 OGPS Completion UST Removal. November 1991 Phase II Studies at Toytown Bioremediation Cell report recontaminated SL from OGPS. June 1992 & September 1992 OGPS GW Investigation Prog reports. January 1993 RAP Toytown Landfill Treatment Cell. September 1993 Revised GW Toytown Landfill Bio-remediation Treatment Cell. April 1995 Summary Report Implement Plan Toytown Bioremediation Cell. June 1995 Continuation of GW Investigation Plan rece Assessment Activities Letter report. September 1996 SL Characterization and RAP Modifi February 1997 Second Supplemental Site Assessment letter report. October 1997 IRA repo excavated and removed for thermal treatment. May 1998 Discovery of SL Impacts & Subs/MGP impacted SL from Booker Creek removed. January 1999 Sampling Plan for Previous 1999 Sampling Results for Previous JUNEX Wonitoring Report Year 1, Quarter 2 for Quarter 3 for OGPS. October 2002 GW/SW Monitoring Report Year 1, Quarter 2 for OGPS. Monitoring Report Year 2, Semi-Annual 1 for OGPS. May 2004 GW/SW Monitoring Report Year 2, Semi-Annual 1 for OGPS. May 2004 GW/SW Monitoring Report Year |

d Milestones.

pe of additional GW & SL sampling. Pump & Treat part of site. SWD not actively managing site.

P.G. in Tallahassee in January 2010. FDEP would

view completed. January 2014. FDEP SWD sends 2014. FDEP issues an NFA for site. FDEP determined roject (now Peoples Lane) any MGP impacts likely y result in groundwater exceedances of BaPs and may r 2014 – no SRCO issued.

ast Dome report and CAP. January 1988 CAR. June ugust 1988 Thermal Treatment FS report. February Risk Assessment Report and Site Rehabilitation Levels cuation Plan and Landfill Treatment Area Conceptual vels received. October 1989 Analytical Summary for lytical Summary Report for November 1989.

1990 Analytical Summary Reports for January & ion report. September 1991 Closure Assessment Report received for remediation of 95,705 yds³ of MGP ogram and Revised OGPS GW Investigation Program GW Investigation Plan. December 1993 Revised RAP nentation of GW Investigation Plan/QAPP & Sampling pecived. June 1996 Old Gas Plant Supplemental Site lification Toytown Landfill Bioremediation Cell. port – 95.52 tons of petroleum/MGP impacted SLs bsequent Disposal at Booker Creek report. 296 tons of pusly Unexcavated Areas received by FDEP. October

arch 2002 GW/SW Monitoring Report Year 1, Quarter or OGPS. July 2002 GW/SW Monitoring Report Year 1, GPS received by FDEP. April 2003 GW/SW port Year 2, Semi-Annual 2 for OGPS. December 2003 toring Report Year 3, Semi-Annual 2 for OGPS 5 GW/SW Monitoring Report Year 4, Semi-Annual 2 08 GW/SW Monitoring Report for December 2007 at

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|---|----------|---|---|--|--|
| Peoples Gas System | | | CWG | PA-8/1987 | OGPS. July 2008 GW/SW Monitoring Report for June 2008 at OGPS. February 2009 GW April 2009 Source Removal Plan OGPS Area 3. 2010 to March 2013 Additional SL removal completed in 2010 & GW NAM continuing. Fo November 2010 at OGPS. June 2011 First Quarterly PARM Report for February 2011 at O Quarterly PARM Report for September 2011 at OGPS. July 2012 GW Monitoring and Th February 2013 Combined GW Monitoring and Fourth Quarterly PARM Report for Janua Source removal. In monitoring only stages for GW and SW contamination. Needed to exec Additional SL removal completed in 2010 & GW NAM continuing. Additional SL samplin Update: December 2013 NFA Proposal Report. March 2014 FDEP issues Site Assessment A finalized and recorded. October 2016 FDEP issues Conditional SRCO issued by FDEP EPA archived site in 1996. State Lead by SWD. |
| Aka: Former Tampa MGP Formerly 1200 North 13 th Street, now 1400 Channelside Drive Tampa, FL 33605-4925 Currently: Commercial Property for lease includes a Home designer business. Off-site: NAPL and DNAPL GW Plume south of FMGP. | SWD | FLD982119653 COM_65122 BF291406000 BF291406001 | 1895 to 1960 | Desktop SI 5/1991 SIP 1/1995 EPA Recommendation: NFRAP | 1980 to 1989 - July 1986 contaminated SL discovered by City road crew on 13th Street, nor FDER. June 1989 Proposed SL Gas Survey Locations letter 1990 to 1999 - July 1990 CAR received by FDER and CO executed between FDER and PC CARA. July 1994 Documentation of Hydrochemical Facies Analysis Technique for Contan received by FDEP. April 1996 Field activities – IRA, 11,456,21 tons of MGP impacted SL e August 1996 IRAR received by FDEP. October 1996 Supplemental CARA. December 1998 WP for IRA for removal of SL with woodchips received by FDEP. 2000 to 2009 - May 2000 IRAR an additional 2,197.50 tons of MGP impacted SL excavated north boundary. November 2000 Environmental Risk Mitigation Plan & HASP Addendum Channelside Drive Facility Site Improvements – 2000. August 2001 SL and Dewatering M4 September 2001 On-Site CAP received by FDEP. September 2002 Status Report. May 2000 removal of tar from around buildings on-site. November 2003 Environmental Forensic rep Addendum to SL and Dewatering Management Report City of Tampa Trolley Car Project to adjoining property owners. July 2008 Summary of 2008 GW Gauging and Sampling Ev sampling Results for 2008 & 2009) received. November 2009-TECO identifies data gaps. A 2010 to March 2013 – Additional SL and GW assessment conducted 2010 to 2012. August 2 summary, still completing contamination assessment. May 2003 source removal completed buildings on-site. exp11/2009-TECO identifies data gaps. Additional SL and GW assessment delineation of contamination of SL vertically and laterally off-site; GW delineation appear Update: April 2013 Surface SL and Vadose Zone Soil Evaluation letter report. July 2013 S SL Boring Investigation Report. June 2014 MPE Pilot Testing WP. July 2014 MPE Pilot TeDEP. December 2014 Brownfield Agreement executed, January 2015 ISR Plan Addendur GW treatment. February 2015 FDEP issues ISR Plan Approval Order. May 2015 RAP rec |

d Milestones.

W/SW Monitoring Report for December 2008 at OGPS.

February 2011 GW/SW Monitoring Report for at OGPS. January 2012 GW Monitoring and Second Fhird Quarterly PARM Report for May 2012 at OGPS. uary 2013 at OGPS. As of March 2013, summary, ecute deed restriction for contaminated SL left in place. ing being conducted – site current as of 1/2013.

Approval. September 2016 Restrictive covenants were

orth of Seaboard RR. October 1988 PCAP received by

PGS. March 1993 CARA QAPP & WP. December 1993
amination Evaluation & Characterization report
c excavated and removed to thermal treatment facility.
98 Supplemental CARA II. December 1999 Proposed

ed and removed to a Landfill. Barrier wall installed on um for Trolley Car Track. March 2001 TECO/PGS Management Plan City of Tampa Trolley Car Project. 003 source removal completed to 6 feet bls involving eport. April 2004 On-Site CAR. October 2004 ect. March 2006 Off-site contamination letters sent out Event letter report received by FDEP. August 2009 GW Additional SL and GW assessment conducted 2009.

at 2010 SARA. June 2012 SARA II. As of March 2013, ed to 6' bls involving removal of tar from around ment conducted 2009-2012. Still pursuing completing ars complete both vertically and horizontally.

Site Assessment approval letter from FDEP. May 2014 Testing Report. November 2014 ISR Plan submitted to lum with MPE system, vapors, GW & NAPL recovery, eceived. Includes impervious cap engineering control,

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|---|----------|--|---|---|--|
| | | | | | surface SL excavation and NAPL Remediation Strategy. June 2015 ISR Plan Addendum. A Approval Order. September 2015 RAP Addendum received. October 2015 FDEP issues of Quarterly Status Report. November 2015 Construction Completion Report and Condition February 2016 Quarterly Status Report. April 2016 Quarterly Status Report (Dec. 2015 to and Phase 2 of the MPE implemented. October 2016 Semi-Annual Status and Phase 2 MPI (March 2016 to August 2016). April 2017 Semi-Annual Status Report (Sept. 2016 to Feb. 2 FDEP. October 2017 RAP Modification Approval Order Issued by FDEP and Semi-Annual Status Report (March 2018 to August. 2018). 9,568 gallons of NAPL recovered to date. 1,320.5 po 2018. FDEP concurs with recommends to terminate mobile NAPL recovery in Phase 1 & 2 sampling of two downgradient wells. RAP is ongoing and site is current. |
| Aventura Gasworks Dump Aka: Former Binnings Pan American Southwest and south of intersection of NE 28 th Ct and NE 185 th St., Aventura, FL. 33160-2083 Currently Footprint of former MGP dump on portions of Biscayne Academy, Admiral's Port Condominium parking lot, Aventura Landings Condominiums, and a synagogue. | SED | FLN000410532 COM_299239 MDER-RER Case # SW- 01705 Folio# 2822030000250 | N/A MGP Dump | PSA-11/2009 APA-12/2009 SI-10/2010 EPA Recommendation: FA (Low Priority) | Site came to FDEP attention via Dr. Hatheway FMGP web site. Lead is MDERM-RER. Dr. wastes (i.e. tars, purifier wastes, etc.). PRP completed source removal of at former Binning Landings) portion of site in 2002. MGP and other wastes removed from a 300 feet x 400 feet smaller area (100 x 150 feet) excavated an additional 2 feet deep. During CERCLA PSA and ocuments, FDEP determines additional areas of MGP dump still exist. During CERCLA and SVOCs on Biscayne Institute/Academy & Admiral Point Condominiums parking area Little Lake Maule. MDERM-RER assumes responsibility of Biscayne Institute/Academy (sampling and institutional and engineering controls. April 2010 MDERM-RER conducts S September 2012 GSOMR submits Partial Engineering Control Implementation Report to fill engineering control. November 2012. MDERM-RER notifies GSOMR, LLC of fencing control. |
| Ft. Lauderdale GasificationAka: Peoples Gas System CoxPlant398 NW 7th Ave (SE corner ofint. of NW 4th St. and NW 7thAve.).Ft. Lauderdale, FL 33311Currently: Vacant grass lotowned by North Broward | SED | FLD984169268 COM_54031 | CWG 1930 to 1959 | PA-12/1989 PAR/SSI-Phase I 1/1990 No SI completed EPA Recommendation: NFRAP | Site Archived by EPA March 1990. Lead through Broward County Environmental Progra 1980 to 1989 August 1985 BEQCB issues NOV for unlawful Discharge of PAHs. December MW installation/GW sampling phase. June 1987 Phase III Activities Report. 1990 to 1994 June 1991 CAR. November 1992 MGP impacted SL removal (62.7 tons) from March 1994 Fourth Quarter GW Sampling Report. After Fourth Quarter GW Sampling r March 1994. No further updates. |

nd Milestones.

August 2015 FDEP issues ISR Plan Modification conditional RAP Approval Order. February 2016 onal RAP Modification Order issued by FDEP. to February 2016), May 2016 Quarterly Status Report. PE Implementation Construction Completion Report 2017). September 2017 RAP Modification report to ual Status Report (March 2017 to August. 2017). April d BSRA executed. October 2018 Semi-Annual Status pounds of dissolved mass recovered to date. November 2 Treatment Area. FDEP does not agree ceasing UIC

Dump area used by a nearby MGP for disposal of MGP ngs Pan American facility (Merco Group/Aventura feet excavation area down to limestone bedrock. A and APA process and review of previous site A SI, FDEP finds SL and GW contamination by VOCs ea. Possible MGP impacts to northwestern edge of (GSOMR, LLC) part of site requiring additional SL & SL sampling of Biscayne Institute/Academy. o MDERM-RER. Plan documents completion of clean og restriction requirements and/or an engineering

ute Re: Engineering Control Implementation Report. g control (Fencing) in Area 2. Biscayne Institute plans n the West side by May 2014. March 2014 MDERMort covering all areas due May 2014. May 2014 rts all controls in place. August 2016 MDERM-RER R/Biscayne issues HASP for former Biscayne Institute OMR/Biscayne issues HASP Addendum for former Re: air monitoring and not accepting BaPTE ASCTL.

ram.

er 1985 Phase I Backhoe Test pits. March 1986 Phase II

om three areas conducted. Quarterly GW Monitoring. g results, Site given a NFA by Broward County in

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|---|----------|--|---|--|---|
| Hospital District and adjacent to Broward Health Medical Center Parking area. | | | | | |
| Peoples Gas System/TECO Inc. (North Miami Beach) 15779 West Dixie Hwy N. Miami Beach, FL 33162-6037 This MGP site consists of two parcels divided by West Dixie Highway. East Parcel contained most of MGP processing apparatus (retort building, tar separator pit, scrubbers, purifiers, tar storage tank, relief holder, etc.) West Parcel had a relief storage and storage holder tank. Currently: West Parcel -Vacant Land Incl. Retention Pond East Parcel TECO Peoples Gas | SED | FLD980843163 COM_57754 MDERM-RER Case # IW5- 01444/File-1343 | CWG 1929 to 1959 | PA-11/1985 PAR 1/1990 SI 3/1990 Reassessment 1/1994 SIP 4/1995 EPA Recommendation: NFRAP | Site given an NFA in May 1995 and archived by EPA January 1996. Lead through FDEP S 1980 to 1989 October 1984 Routine inspection of bulldozing for landfill discovers coal tar. N Action. December 1984 Proposal for Hydrogeological Evaluation of SL and GW Contaminin Hydrogeological Evaluation of SL and GW Contamination. May 1985 Report Hydrogeolog Plan Outline, July 1986 Phase II Activities letter report. September 1986 Revised CAP (Fiel Revised Field Sampling and Analysis QAPP. April 1987 CO Executed between PGS, MDEI Contamination Assessment Activities in Partial Fulfillment of CAP received. August 1988 C 1990 to 1999 – April 1991 Human Health and Environmental Risk Assessment report. July report received. July 1992 Revised Human Health and Environmental Risk Assessment report. July report received. July 1992 Revised Human Health and Environmental Risk Assessment report. July report received. July 1992 Revised Risk Assessment report. June 1996 CARA. January 1999 Su Supplemental CARA II. 2000 to 2009 – March 2000 Revised Risk Assessment report. September 2005 revised RAP. Oc Test Summary letter report. August 2006 Pumping Test Plan Addendum. July 2007 revised Off-site notification package completed and letter to adjacent property owners sent. May 20 Remedial Characterization Report and Biosparge Pilot Test report. March 2012 Remedial Cha Supplemental SL sampling Plan for West Parcel Received. December 2012 Proposed Sourc Characterization Report Addendum/SL Initial RAP. March 2013 Summary Update, CO be April 29, 2009, Extensive SL removal over the years. Additional site assessment activities by monitoring and GW elevation from all wells. Meeting held with PRP, MDERM-RER & FD & options to deal with contamination beneath major railroad corridor. Status Report due J RER is co-reviewing project activities with the FDEP SED. Note that Dixie Highway, US 1, & GW plumes mostly completed to propose and approve a Remedial strategy for the Weste Western Parcel. Removal of contaminated SLs in the Western Parcel has been propo |

d Milestones.

SED and MDERM-RER.

. MDERM-RER issues NOV & Orders for Corrective ination. January 1985 Revised Proposal for ogical Study. October 1995 CAP. February 1986 FS ield Sampling and Analysis QAPP). February 1987 ERM-RER and FDEP. October 1987 Report of 8 CAR. September 1989 Preliminary RAP.

ly 1991 Status report. March 1992 Data Summary eport. December 1993 FS report. August 1993 Focused Supplemental CARA received. October 1999

r Field Activities. January 2001 RI report. May 2002 October 2005 Pumping Test Plan. May 2006 Pumping ed Pumping Test Summary letter report. March 2009 2009 Remedial Approach WP. November 2009

Characterization Report Addendum. November 2012 urce Removal Report. March 2013 Remedial between FDER, MDERM and PRP. Updated by SED 5 by PRP, including SL borings and deeper GW FDEP December 2008. Additional delineation needed e June 2009-Remedial Strategy is next step. MDERM---1, was widened. As of January 2013, Delineation of SL estern Parcel. A BSRA is being pursued for the with hydra-seeding. Trees have been removed prior to

ef of dust and air monitoring and SL removal activities. al activities and liner/cap installation. 48,796 tons of 2014 Supplement to RAP Addendum. September 2014 excavated/removed. November 2014 RAP Addendum of NFA with Conditions concurrence by MDERM-April 2017 RAP Approval Order issued by FDEP. October 2017 RAP Approval Order in Support of NFA

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|--|----------|--|---|--|---|
| Peoples Gas/Miami Rinker | | | W, CWG | PA-2/1990 | with Conditions -UIC issued by FDEP. January 2018 Revised East Parcel SLs Closure Plan by MDERM-RER. June 2018 MDERM-RER approves RAP Construction East Parcel Drav Site lead by MDERM-RER. |
| Aka: CEMEX-Downtown Miami-Ready Mix 1600 North Miami Avenue Miami, FL 33136-2017 Site divided into two parcels by Florida East Coast RR ROW. East parcel: MGP apparatus included plant retort building, tar well, purifiers, relief holders, oil storage & light oil condenser. West parcel included: two Gas holders and additional purifiers. Currently: CEMEX-Downtown Miami Plant (East Parcel) and TECO Peoples Gas (West Parcel). | SED | FLD984169219 COM_71973 8505868 0131250481140 1385055868 138505687 MDERM-RER Case # IW5- 03225/File2984 UT- 3223/File9168 | | EPA Recommendation: NFRAP | Sile read by MDERMARER. 1980 to 1989 – February 1987 CAR. January 1988 Revised CAR. January 1989 Status Rept 1989 Supplemental CAR. 1990 to 1999 – September 1992 Hydrogeologic Data Collection for Risk Assessment report. 1993 Well Installation report. November 1994 Summary of Phase II Work. March 1995 CA CARA. November 1996 CARA II. April 1997 CARA III. August 1997 Supplemental Inforn Pilot Test Proposal. July 1998 Product Recovery Pilot Test Status and GW Flow Update re Well Locations and Elevations report (Rev. 3). October 1999 Historic Land Use Research R Measurements and Product Recovery reports. 2000 to 2009 - 2000 – 2006 Field Observations of Product Thickness Measurements and Product Recovery reports. 2000 to 2009 - 2000 – 2006 Field Observations of Product Thickness Measurements and Product Recovery reports. 2010 to March 2013 - November 2010 Pilot Study WP for FP Recovery and Initial VI Scree of CEMEX Control Room received. July 2011 Report of Indoor VI Investigation. December (North/South ROWs NW16th St.) SL Initial Remedial Action Completion report. March 20 RER. However, petroleum waste detected & referred to State Petroleum Cleanup program SARA for MGP portion of site submitted to MDERM-RER in October 2008. SARA review 2009. Likely co-mingled petroleum and coal tar GW plume. June 2012 supplemental suffer FP NAPL removal. February 2012 MDERM-RER requests ISR. June 2012 supplemental suffer SPP that GW plume not fully delineated. December 2012 Remedial requests additional information Re: report. Update: April 2013 BS/SVE Pilot Test WP. October-November 2013 RAP received. Januar RER Review Comments. April 2014 Supplement to RAP Addendum. June 2014 In Situ Sta 2014 Results of Supplemental Surface SL Analyses for PAHs including BaPTE & Proposed February 2016 Report of Results of Off-site GW Sampling /Analyses Event (Sept./Oct. 2015 Biogeochemical Characterization. February 2016 Report of 2016 (Feb. 6, 2016) Annual FP Summary |
| West Palm Beach MGP Aka: Florida Public Utilities Inc. 209 2 nd St. West Palm Beach, FL 33413- 1766 | SED | FLD984169201 COM_48354 630-1 | W, CWG 1924 to 1960 | PA-3/1989 Desk-top SI- 5/1991 SIP-5/1995 Reassessment 7/2000 | Site lead through FDEP SED Private Party Lead Cleanup. MGP and potential petroleum c 1990 to 1999 – February 1990 PCAP. July 1990 PCAR. April 1991 CO executed between Fl Preliminary Report. August 1993 WP for Additional GW Sampling to Complete CAR. Dec 2000 to 2009 - April 2000 CARA. December 2001 Supplemental CARA. September 2002 Pl Activities received. October 2002 SL Sampling and Analysis Plan. September2003 Compret |

d Milestones.

an for COC-Impacted SLs (ASCTL for BaP received rawings.

eport, Supplemental Contamination Assessment. March

rt. February 1993 Risk Assessment report. October CAR. September 1995 revised CAR. December 1995 ormation, CARA III. January 1998 Product Recovery report. August 1999 Monitoring, Piezometer and Test h Report. 1999 Field Observations of Product Thickness

Product Recovery reports. August 2006 Plume port. June 2007 March/April 2007 Assessment ted and letter to adjacent property owners sent.

reening Results/Recommended VI Approach/Plan Area ber 2012 Remedial GW Report. February 2013 Off-site 2013 update, Enforcement was pending by MDERMam. Also, currently in State Petroleum tanks program. ew comments March 2009. SARA 2/RAP due May ff-site. July 2009 Pilot Study Work Plan submitted Re: l surface SL results submitted. September 2012 lial GW report issued. March 2013 MDERM-RER

aary 2014 RAP Addendum & Response to MDERM-Stabilization/Solidification Treatability Study Plan. July sed Remedial Plan. August 2014 Air Monitoring Plan. 015) for Predominant Petroleum COCs & Further FP Measurement & Recovery Event. January 2018. rom Miami-Dade Co. and City of Miami. Letter Report.

contamination likely co-mingled.

FDER and FPUC. May 1991 CAP. October 1992 December 1995 CAR.

Plan for Additional Contamination Assessment rehensive SL and GW Assessment report. October

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|---|----------|---|---|---|--|
| Site divided into two parcels by 2 nd Street. South parcel had the majority of MGP apparatus including retort building (with gas producers), Gas tanks, tar cooker, tar separator, Hortonsphere tank, gasometer tank, purifiers, fuel oil tanks and oil tank. North parcel included two Gas holders. Offsite contamination: East parcel. Currently: South parcel - FPUC Office/Station. North Parcel - Parking area for FPUC employees and customers. East parcel: Vacant land & remediation system trailer. | | | | EPA Recommendation: OCA | 2004 revised Plan for Additional Contamination Assessment. September 2005 Off-site notif property owners sent. October 2006 Off-site Surface SL sample results (2006) letter report. 2008revised FS. April 2009 Remedial Action Order executed. May 2009 WP for the Pre-Re received. August 2009 Pre-Remedial Design WP for remedial Alternative 5. Alternative 5 in hydraulic barrier (SL bentonite slurry wall) & hydraulic controls. September 2009 GW Mc Revision 1. December 2009 FS report Revision 2. 2010 to March 2013. December 2010 - IRAP for East Parcel. March 2011 IRAP Addendum Order/Modification of Approval Order for Pilot Study for East parcel & EPA START Ren letter report. October 2011 IRAP Supplement for East Parcel. March 2012 Demolition Rep IRAP Approval Order issued by FDEP & Semi-Annual GW Monitoring report (Last 2 Qu: Analysis- Remedial Action for the West Parcel & Conceptual Plan for Remediation of West Annual GW Monitoring report (First 2 Quarters of 2012) received. January 2013 Semi-Annual GW Monitoring considered as of April 2009.Following the submitted in November 2006, comi options being considered as of April 2009.Following the submitted of a FS, FPU was merged the approach to cleanup took a more aggressive path by proposing a pilot project for the E has been approved for the eastern parcel on 4/8/12. Based on the results of this Pilot project The SVE and sparging into the shallow points started in 1/2013. GW Monitoring continues Update: November 2015 May 2017, BS/SVE Startup & GW Monitoring Annual Report. Ea Annual Reports East Parcel. FDEP allows FPUC to proceed with MGP related rehabili program activities as long as FPUC complies with the site rehabilitation requirements of C |
| Ft. Myers Coal Gasification Plant Aka: Ft Myers MGP 2000 Cranford Ave Formerly 2600 Anderson Avenue Ft. Myers, FL 33916-4006 Currently: IMAG History and Science Center. | SD | FLD984169458 COM_74062 BF369901000 BF369901001 | W 1924 to 1959 | PA-6/1989 SI- 12/1992 SIP June 1993 Reassessment 10/2002 EPA Recommendation: NFRAP | Site lead through FDEP SD 1990 to 1999 - February 1993 CO between City of Ft Myers and FDER. June 1993 CAP. Set Tank Demolition & Removal report-Gas Holder/Gasometer removed. 23,500 gallons of MC removed November 1995 CAR issued. July/August 1996 CARA. September 1996 CAR ap SL excavation removed 10,000 tons of MGP impacted SLs. 2000 to 2009 - Source removal and GW treatment and monitoring conducted early 2000's. Assessment. March 2001 BSRA signed between City of Ft Myers and FDEP. Site designate July 2001 Pre-Remediation Assessment Report. October 2001 RAP issued. December 2001 vacuum enhanced treatment system commenced operation. 300,000 gallons of water treater Portion of site redeveloped as Imaginarium children's museum (now IMAG History and Set Startup Report. June 2003 & September 2003 GW Monitoring and Performance Reports. Successfully completed in 2004. NFA with Institutional Controls proposed in 2005; Imperv an approved restrictive covenant. Update: January 2011 NFA with institutional controls and set of the set of |
| Key West Gas & Electric (Key West MGP#1) | SD | FLN000410751 COM_303264 | 0 | PSA-1/2011 APA-10/2011 | Site lead through FDEP SD. MGP operated late 1880's to early 1890's before relocating to petroleum program involvement under Abandoned Diesel Plant Key West site. |

d Milestones.

otification package completed and letter to adjacent rt. November 2006 FS report received by FDEP. June Remedial Design Studies for In Situ GW Treatment 5 includes surface SL excavation, Cap placement, Modeling report. October 2009 GW Modeling report.

um for East Parcel. May 2011 FDEP issues Approval emoval Investigation (Soil Vapor Intrusion Study) eport for the East Parcel. April 2012 Limited Scope Quarters of 2011) received. May 2012 Critical Path (est Parcel received by FDEP. October 2012 Semi-Annual GW Monitoring report (Last 2 Quarters of y PAW April 2009, Additional on-going site assessment mments sent, revised FS prepared, in review and ged with Chesapeake Utilities Corporation. Thereafter, Eastern parcel, while monitoring the GW. An IRAP ect, a RAP would be submitted for the rest of the site. tes.

East Parcel August 2018 BS/SVE & GW Monitoring UC presents plan (Phases 1 & 2) for proceeding with silitation and to hold up any petroleum restoration Chapter 62-780, FAC.

September 1993 CAP approved by FDEP. March 1994 MGP related contaminated water and coal tar approved by FDEP and proceed to RAP. After CARA,

s. December 2000 Plan to Conduct Pre- Remediation ated as a Brownfield and remediating under a BSRA. 01 FDEP issues RAP Order. June 2002, dual-phase ated. October 2002 GW Monitoring and Startup Report. Science Center). February 2003 GW Monitoring and s. May 2004 GW monitoring report. Remediation ervious soil cap constructed. City of Ft Myers recorded and SRCO with conditions issued.

to Catherine Street (Key West MGP#2). Separate State

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|--|----------|---|---|---|---|
| Aka: Keys Energy Services Substation Aka: Abandoned Diesel Plant Key West 101-111 Geraldine St. & 709 Fort St. Key West, FL 33040 Currently: Keys Energy Services Key West Diesel Substation/Shop Area. | | | 1884 to 1890's | SI- 8/2012. EPA Recommendation: NFRAP | 1990 to 1999 – October 1991 CAR Abandoned Diesel Plant Key West. July 1992 CARA Ab Abandoned Diesel Plant Key West. May 1993 RAP Addendum Abandoned Diesel Plant Key Diesel Plant Key West. July 1993 FDEP approves RAP, RAP Addendum and RAP Modific April 1994 to July 1995 First to Third Quarter GW Monitoring reports Abandoned Diesel MGP/petroleum impacts (i.e. staining, odors) noted in SL & GW during CERCLA SI. Ars anthracene) detected in SL. Isopropylbenzene, acenaphthene and naphthalene were detect HRS. November 2012 Site referred to FDEP SD for possible enforcement. Update: July 2013 Phase I ESA Report. October 2013 Phase II ESA Report. March 2014 S Year 1, Quarter 2 NAM Report. March 2015 Year 1, Quarter 3 NAM Report. July 2015 Y Declaration of Restrictive Covenant. April 2016 Conditional SRCO (NFA RMO III) issued |
| Former Key West Gasification Plant (Key West MGP#2) Aka: Suburban Propane 726 Catherine Street Key West, FL 33040-3226 Currently: Still Suburban Propane. | SD | FLD984172189 ERIC_6321 COM_317676 616-1 | CWG 1912 to 1940s | PA-8/1990 Desktop SI- 09/1993 EPA Recommendation: NFRAP | Site Archived by EPA October 1993. Site lead through FDEP SD. 1990 to 1999 - February 1993 PCAR completed. SL contamination confirmed. Underlying discovered. Coal tar diesel fuel wastes detected. No known source removal. Suburban Prop 2000 to March 2013 - PRP search by FDEP in early 2000's did not yield a viable PRP assoc Propane later identified as RPs. 2009-10, FDEP SIS conducts PCA. September 2011 SIS PC above GCTLs in GW. TRPHs & BaPTE found in SL above SCTLs. September 2011 Letter monitoring program. May 2012 First Semi-Annual GW Monitoring Report. October 2012 NAM program. First NAM event March 2013. Update: November 2014 Second Semi-Annual NAM Report. June 2015 Semi-Annual NAM October 2016 Semi-Annual NAM Report. March 2018 Semi-Annual NAM Report. April 2 recommendation for continued NAM |

Links to electronic databases for additional Information:

FDEP Oculus: http://dwmedms.dep.state.fl.us/Oculus/servlet/login

FDEP Information Search Portal http://prodenv.dep.state.fl.us/DepNexus/public/searchPortal

Miami-Dade Department of Regulatory Economic Resources (MDERM-RER) Online Environmental Records web site <u>http://ecmrer.miamidade.gov:8080/</u> Broward County Site Inventory Report <u>http://www.broward.org/Environment/CONTAMINATEDSITES/Pages/SiteLocations.aspx</u>

d Milestones.

Abandoned Diesel Plant Key West. October 1992 RAP Key West. June 1993 RAP Modification Abandoned fication for Abandoned Diesel Plant Key West site. el Plant Key West. CERCLA SI summary rsenic, lead & PAHs (benzo [a] pyrene, dibenzo [a, h] cted in on-site GW above GCTLs. Site did not score on

SAR to FDEP. August 2014 SSAR. December 2014 Year 1, Quarter 4 NAM Report. March 2016 ed by FDEP.

g Miami Oolite limestone likely impacted. NAPL opane current owner. No viable PRP.

sociated with MGP operations. FPUC and Suburban PCAR released, PAHs, BETX, TRPHs & Sr found ter WP for additional GW and SL assessment & GW 2 RAP approval Order issued by FDEP for one-year

M Report. April 2016 Semi-Annual NAM Report. 2018 FDEP concurs with PRP contractor

Key to Abbreviations and Acronyms

| AOC | = | Administrative Order on Consent (EPA) |
|---------|---|--|
| APA | | Abbreviated Preliminary Assessment |
| ASCTL | | Alternative Soil Cleanup Target Level |
| AS/SVE | | Air Sparge/Soil Vapor Extraction |
| ARARs | | Applicable or Relevant and Appropriate Requirements |
| As | | Arsenic |
| BEQCB | | Broward Co. Environmental Quality Control Board |
| BaPTE | | Benzo [a] pyrene toxic equivalents |
| BSRA | | Brownfield Site Rehabilitation Agreement |
| BS/SVE | | Bio-sparging/soil vapor extraction |
| BTEX | | Benzene, Ethyl benzene, Toluene & Xylene |
| C | | Coal Carbonization – Early MGPs. Carbonizing coal in retort to |
| e | | produce hydrogen, methane & carbon monoxide (~ 500 BTU) |
| CAR | = | Contamination Assessment Report |
| CARA | | Contamination Assessment Report Addendum |
| CD | | Central District |
| CN | | Cyanide |
| CO | | Consent Order |
| COC | | Contaminants of Concern. |
| COJ | | City of Jacksonville |
| COSA | | City of St. Augustine |
| COT | | City of Tallahassee |
| CWG | | Carbureted Water Gas (i.e., Lowe Process)- Produced by enriching gas |
| | | by injecting oil into MGP carburetor. (> 1,000 BTU) |
| Cyn | = | Cyanide |
| DERM | | Dade Co. Environmental Resources |
| Desktop | | Used PRP data |
| DNAPL | | Dense non-aqueous phase liquids |
| DOH | | Department of Health |
| DSAP | | Design Sampling & Analysis Plan |
| DSAR | | Design Sampling & Analysis Report |
| DW | | Drainage well |
| EE/CA | | Engineering Evaluation/Cost Analysis |
| ESA | | Environmental Site Assessment |
| ESI | = | Expanded Site Inspection (CERCLA) |
| FA | | Further Action |
| FDER | = | Florida Dept. of Environmental Regulation |
| FDEP | = | Florida Dept. of Environmental Protection |
| FEC | = | Florida East Coast Railroad Co. |
| FMGP | = | Former Manufactured Gas Plant |
| FP | = | Free Product |
| FPC | = | Florida Power Corporation |
| FPUC | = | Florida Public Utilities Corp. |
| FP&L | | Florida Power and Light |
| FS | = | Feasibility Study |

| ~ . ~ | |
|-------|---|
| GAC | = Granulated Active Carbon |
| GW | = Groundwater |
| HASP | = Health and Safety Plan |
| HRS | = Hazard Ranking System |
| IA | = Integrated Assessment |
| IRA | = Interim Remedial Action |
| IRAP | = Interim Remedial Action Plan |
| IRAR | = Interim/Initial Remedial Action Report |
| ISR | = Interim Source Removal |
| ISS | = In-Situ Stabilization |
| JTA | Jacksonville Transportation Authority |
| LNAPL | = light non-aqueous phase liquids |
| LSI | = Listing Site Investigation |
| MDERM | = Miami-Dade Co. Dept. of Regulatory and Economic Resources Div.of |
| -RER | Environmental Resources Management |
| MOU | = Memorandum of Agreement |
| MGP | = Manufactured Gas Plant |
| MNA | Monitoring Natural Attenuation |
| MOP | = Monitoring Only Plan |
| MPE | = Multi-Phase Extraction |
| NAM | Natural Attenuation Monitoring |
| NAPL | = Non Aqueous Phase Liquid |
| NED | = Northeast District |
| NFA | = No Further Action |
| NFRAP | = No Further (CERCLA Activty) Remedial Action Planned |
| NOAA | National Oceanic and Atmospheric Administration |
| NOV | = Notice of Violation |
| NPL | National Priorities Listing |
| NWD | = Northwest District |
| 0 | = Oil Gas - Pyrolysis of naptha & heavier petroleum oils to produce gas |
| | rich in methane, ethane, hydrogen & light hydrocarbons (i.e., Pintsch |
| | process) (~ 1,000 BTU) |
| OCA | = Other Cleanup Activity (EPA Deferred to State or County Lead) |
| OGPS | = Old Gas Plant Site |
| ORC | = Oxygen Release Compounds. |
| ORT | = Operations Response Team (Now SIS) |
| OU | = Operable Unit |
| PA | = Preliminary Assessment (CERCLA) |
| PAHs | Polynuclear aromatic hydrocarbons |
| PAR | = Preliminary Assessment Reassessment |
| PARM | = Post Active Remediation Monitoring |
| PAW | = Paul A. Wierzbicki FDEP WPB District Office |
| PCA | = Preliminary Contamination Assessment |
| PCAR | = Preliminary Contamination Assessment Report |
| PERA | = Miami- Dade County Permitting, Enforcement & Regulatory Affairs |
| PGS | = Peoples Gas Service |
| PRP | = Potential Responsible Party |
| PSA | = Pre-CERCLA Screening Assessment |
| OAPP | = Quality Assurance Project Plan |

| RAI=Request for Additional InformationRAP=Remedial Action PlanRI=Remedial InvestigationRMO=Right InvestigationRWO=Right -of- WayRP=Responsible PartyRR=Rail RoadROW=Right -of- WayRP=Record of DecisionROW=Right -of- WayRP=Record of DecisionROW=Right -of- WayRP=Remedial Project ManagerSAR=Site Assessment ReportSARA=Site Assessment ReportSAR=Site Assessment ReportSD=South DistrictSd=Soti Inspection/Site Investigation (CERCLA)SIP=Site Inspection PrioritizationSIS=Site Inspection PrioritizationSL=SoilSED=Southeast DistrictSr=StrontiumSRC0=Site Rehabilitation Completion OrderSRC1=Site Rehabilitation Completion ReportSVE=Soil Vapor ExtractionSW=Surface WaterSWD=Southwest DistrictTM=Technical MemorandumTRPHs=Total Recoverable Petroleum HydrocarbonsUIC=Underground Injection ControlUnk=UnknownVI=Vapor IntrusionW=Water Gas (| RA | = Risk Analysis |
|---|--------|--|
| RI=Remedial InvestigationRMO=Risk Management OptionROW=Right -of- WayRP=Responsible PartyRR=Rail RoadROD=Record of DecisionROW=Right -of-WayRP=Responsible partyRPM=Remedial Project ManagerSAR=Site Assessment ReportSARA=Site Assessment Report AddendumSSAR=Supplemental Site Assessment ReportSD=South DistrictSed=SedimentSI/SI=Site Inspection/Site Investigation (CERCLA)SIP=Site Inspection PrioritizationSL=SoilSED=Southeast DistrictSr=Strice Rehabilitation Completion OrderSRCR=Site Rehabilitation Completion ReportSVE=Soil Vapor ExtractionSW=Southwest DistrictTM=Technical MemorandumTRPHs=Total Recoverable Petroleum HydrocarbonsUIC=Underground Injection ControlUnk=UnknownVI=Vapor IntrusionW=Water Gas ("Blue Gas") - MGP process of steaming coke or coal to produce hydrogen,& carbon monoxide (~ 300 BTU). | RAI | • |
| RMO=Risk Management OptionROW=Right -of- WayRP=Responsible PartyRR=Rail RoadROD=Record of DecisionROW=Right -of-WayRP=Responsible partyRPM=Remedial Project ManagerSAR=Site Assessment ReportSARA=Site Assessment Report AddendumSSAR=Supplemental Site Assessment ReportSD=South DistrictSed=SedimentSI/SSI=Site Inspection/Site Investigation (CERCLA)SIP=Site Inspection PrioritizationSIS=Site Inspection PrioritizationSL=SoilSED=Southeast DistrictSr=StrontiumSRCQ=Site Rehabilitation Completion OrderSRCR=Site Rehabilitation Completion ReportSVE=Soil Vapor ExtractionSW=Southwest DistrictTM=Technical MemorandumTRPHs=Total Recoverable Petroleum HydrocarbonsUIC=Underground Injection ControlUnk=UnknownVI=Vapor IntrusionW=Water Gas ("Blue Gas") - MGP process of steaming coke or coal to produce hydrogen,& carbon monoxid (~ 300 BTU). | RAP | • |
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| produce hydrogen,& carbon monoxide (~ 300 BTU). | VI | = Vapor Intrusion |
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| WP = Work Plan | | produce hydrogen,& carbon monoxide (~ 300 BTU). |
| | WP | = Work Plan |

Florida MGP Summary Status February 3, 2019

| Sites still in Site Assessment Stage ¹ | Sites with completed IRA, Soil Removal, Solidification, CAP and/or Free Product Recovery | Remedial Activities on- going ² | Natural Attenuation Monitoring/ Post Active Remediation Monitoring On-going | Remediation |
|--|--|---|---|-------------|
| 3 | 18 | 17 | 12 | |

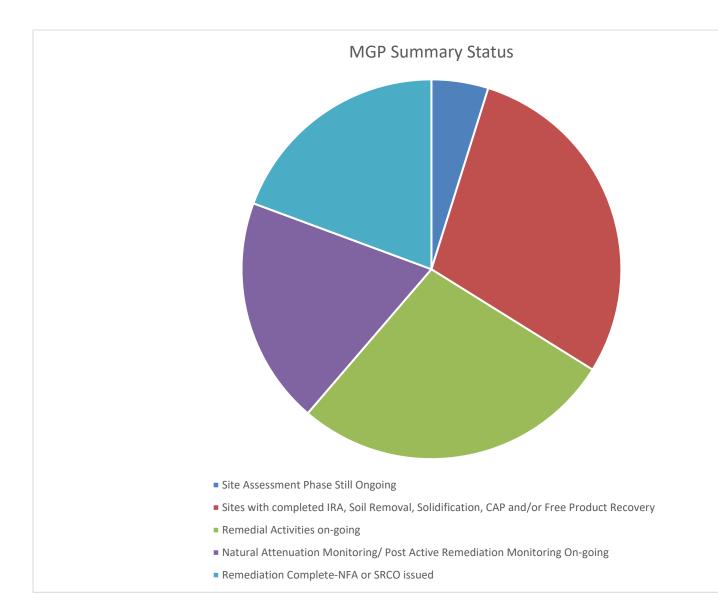
¹ Includes Main Street MGP (MGP [Former Hotel] portion), Pintsch Compressing Gas Co. and Key West Gasification (Key West MGP #2

² All remedial efforts for the MGP sites are funded by potential responsible parties (PRP) through either State Consent Orders or EPA Agreement on Consent Orders.

³The twelve completed Remediation Sites are: Bradenton Gasification, Palatka Gas Works, Riverfront Park MGP (Palatka), St. Augustine Gas Plant, the two Deland Sites, Ft Lauderdale Gasification (Cox Plant), Ft Myers Gasification Plant, Key West Gas and Electric, Lakeland Gasification, Pensacola Gasification and Peoples Gas-Suncoast Dome sites.

J. McCarthy, PG FDEP-02/03/19

| n Complete-NFA or SRCO issued ³ | |
|--|--|
| | |
| 12 | |





Florida MGPs

City of Tallahassee MGP (aka: Cascade Park Gasification Plant) Hortonspheres/Gas Holders, Centennial Field to Left (Date Unknown)

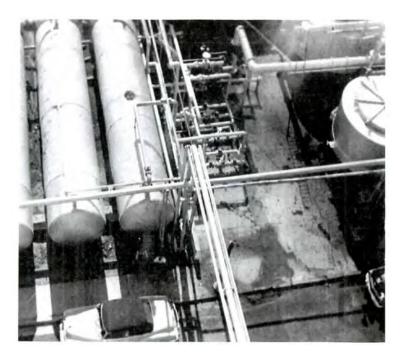


February 2019 SIA GANI S TONE Ided M. 2 GASUMETE 5 66 3 6"W.PIPE 50 GAS HOLDER ----75 EL 014 0 GASPMET 3284 GAS 100000 MUNICIPAL GAS WORKS 28 N NO CLOCK FUEL : CONE, POWER: 366 wrasows 5 STERN (MGW) F.VG E SLOWERS 10' DAC 001 40

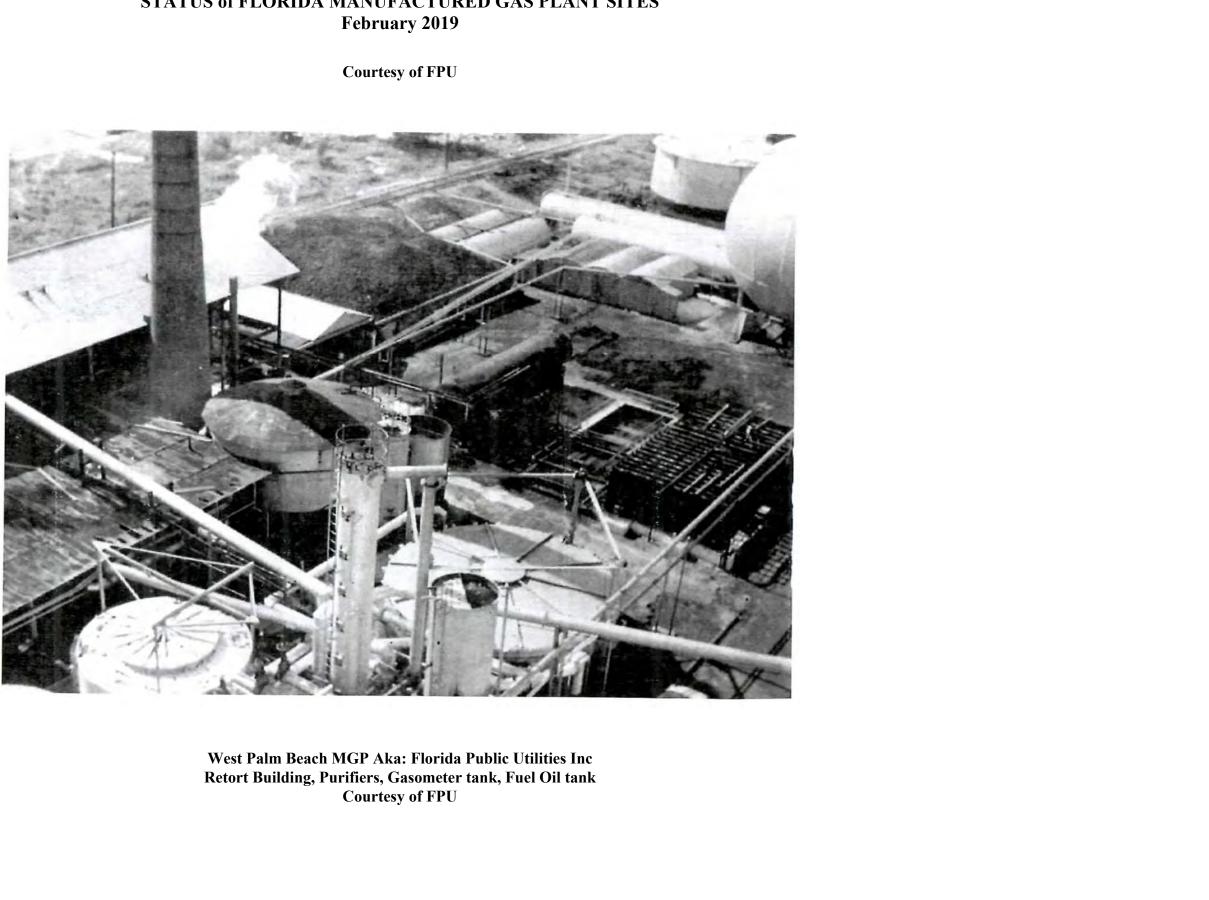
Sanborn Insurance Map - Tallahassee Municipal Gas Works - May 1942 Courtesy of Florida Department of State Division of Library & Information Services Sanborn Map Collection 1867 - 1970

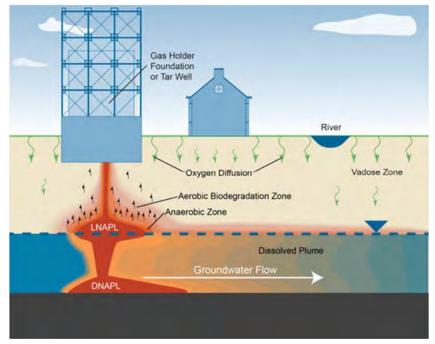


Peoples Gas Storage Tank-Miami-Florida (Date Unknown)



West Palm Beach MGP Aka: Florida Public Utilities Inc Gas tanks and MGP apparatus





Typical MGP Impacts to Groundwater

Courtesy of ITRC

MGP Wastes



Aventura Gas Works Dump, Miami Dade County MGP soil impacts



May 1990 SI Coal tar seeping from old piping at Central Florida Gas Former Retort Building Winter Haven, Florida



May 1990 SI Central Florida Gas Gasification Plant – Winter Haven, Florida Hardened coal tar under Hortonsphere/Gas Holder



July 1990 SI - MGP waste stained soil cores. West Palm Beach MGP Aka: Florida Public Utilities Inc



Tampa MGP Rotosonic core sample containing tar NAPL blebs, stringers and pore space saturation in a calcareous clay unit courtesy Arcadis



A. James McCarthy at Central Florida Gas-Winter Haven & Sphere Tank May 1990

References

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