

# **2020 RCRA GPRA Corrective Action Work Plan**

## **EPA Region 6**

### **Regional Strategy to Complete Corrective Action by 2020**

**January 30, 2009**

Updated: September 9, 2009; April 6, 2010; November 11, 2010; June 29, 2011; August 24, 2011; November 16, 2011; December 19, 2011; February 1, 2012; March 21, 2012; October 29, 2012; January 22, 2013; April 29, 2013; May 6, 2013; September 30, 2013; September 30, 2014;

**Most Recent Update is for data as of September 30, 2015 (End of FY15).**



**RCRA Program**  
**Multimedia Planning and Permitting Division**

**Executive Summary of Regional Strategy to Complete Corrective Action by 2020 from the  
Updated 2020 RCRA GPRA Corrective Action Work Plan - EPA Region 6**

**Goal:** Achieve 2020 GPRA Corrective Action goals by September 30, 2020. It is projected that 95% or more of sites will attain the Human Exposures Controlled (CA725) Ground Water Controlled (CA750), and Remedy Construction Complete (CA550) milestones provided that there are no negative changes to conditions such as funding and disasters.

**Baseline/Background:** At the start in 2009, the baseline was 412 total facilities: The goal was 391 facilities with site-wide CA550-Construction Complete determinations documented starting with 127 facilities with construction complete at the beginning of 2009 leaving 264 sites to complete in 12 years or 22 sites per year. Presently, there is a baseline of 423 sites with a goal of 391. For Remedy Constructed, there are 108 facilities needed to complete the 95% goal in 5 years or less than 22 per year on an average. For Human Exposures only 13 total facilities are required and 58 total for Ground Water.

**Strategy:** Region 6 employs a multifaceted approach to address the major challenges of attaining the 2020 goals. The major elements of the strategy have been used successfully since 1999 allowing the Region to always meet or exceed the GPRA yearly Annual Commitment System (ACS) targets and achieve the final 2005 and 2008 national OSW goals. Additions and modifications are made to the strategy as is found convenient or necessary.

**Grant Negotiations for 2020:** First, Region 6 states were asked to provide 2020 corrective action planning information and projections and secondly, they were asked to make key commitments for FY09 that if sustained, would result in achieving the corrective action 2020 goals. States responded positively and the initial results indicate that the goals are achievable as long as conditions remain the same. This approach of has been continued in FY10, FY11, FY12, FY13, FY14, FY15, and FY16 resulting in consistently good progress toward the 2020 goals.

**Review, Analyze, and Categorize Sites:** All planning information provided by the state and Region was reviewed to determine an individual site's present status and then the 412 total facilities categorized into A, B, and C categories based on technical and resource requirements. In 2013, the baseline was modified by adding 12 sites in Texas and deleting 1 site in Arkansas. With 129 total facilities remaining to complete the construction complete milestone, presently there are 14 A sites and 23 B sites will require the most EPA and state resources to address corrective action. 92 C sites are state lead sites that require mainly EPA oversight. A sub-category of state sites, 30 C-D sites were identified as state lead sites that are having some type of difficulties in the clean-up process. Also, 15 C-E/C-D-E sites were identified as some of the sites that Region 6 has since the start of the 2020 Challenge spent time, money, or other resources in the corrective action process and are now considered state lead.

For further planning purposes, 16 sites are identified in orange in the work plan as problematic and not likely to achieve construction complete unless EPA and the states find innovative solutions. These sites are underfunded, bankrupt, or abandoned, as well as large, complex sites that may not achieve the goal. 3 of the 16 are CA550OF (operating facilities) that are not presently being counted by headquarters. Another 21 facilities are identified in yellow in the work plan as requiring extra attention (overlap with some oranges sites) in that they are presently under an EPA order or EPA is partnering with the state by providing resources to the state. Many times resources are leveraged and innovative approaches to corrective action are successfully used. Some examples of these case studies are summarized in the work plan.

**Provide Resources to Assist or Partner with States:** In addition to grant funding, the Region assists in numerous ways to move sites toward the construction complete goal.

**EPA Contract Assistance or EPA Technical Assistance:** Help to assess sites with sampling and analysis, perform ground water surveys, review documents, select remedies, perform modeling, etc.

**EPA Training:** Numerous trainings have been provided In the past to assist the state programs with different corrective action topics.

**Development and Updating of Corrective Action Strategy (CAS):** Accelerate cleanups and encourage the use of risk-based approaches, flexibility, and performance based remedies.

**Enforcement Resources:** Enforcement staff to perform inspections at some baseline sites and issue new orders as necessary to expedite site assessment and remediation.

**Superfund Resources:** Occasionally used for site assessments and removal actions to assist with underfunded and bankrupt sites.

**Increased Planning and Communication:** The Region 6 states submit projections for sites on the baseline that have not achieved the GPRA milestones. A team approach is used in order to solve corrective action issues. State managers, coordinators, and site project managers are met with in order to obtain more details regarding the individual facilities in order to develop individual plans for sites where the Region's technical, contractor, or other resources are needed. Adjustments to the information in this 2020 work plan will be made as new information is obtained.

## Updated 2020 RCRA GPRA Work Plan - EPA Region 6

### Regional Strategy to Complete Corrective Action by 2020

**Goal:** Achieve 2020 GPRA goals by September 30, 2020. By the end of FY2020, the cleanup of existing contamination at RCRA regulated GPRA facilities will be completed, though some long-term remediation work may be ongoing (e.g. groundwater pump and treat, etc.) The stated goal is that 95% of GPRA baseline sites will attain the Human Exposures Controlled (CA725), Ground Water Controlled (CA750), and Remedy Construction Completed (CA550) milestones for site-wide RCRA corrective action. A new measure has been added which is the Performance Standards Attained (CA900/CA999) milestone of completion of corrective action.

**Baseline/Background:** The Region 6 2020 Baseline in 2009 consisted consists of 412 facilities (258 TX, 64 LA, 36 OK, 31 AR and 23 NM). Presently, in 2015, the baseline has been adjusted to 423 facilities (See insert to right). Since 2009, Texas added 12 facilities to the baseline and Arkansas deleted 1 facility which was listed for Superfund cleanup. This is a net of 11 new sites or 423 total.

State	Facilities
AR	30
LA	64
NM	23
OK	36
TX	270
Total	423

Region 6 has direct corrective action lead or is assisting the states at 35 sites that are either EPA enforcement lead sites or those facilities where States have requested EPA to take the lead or assist because of staffing or other issues. EPA is or has provided technical assistance to States in cases where: 1) facilities that are BRAC or 2) where sites have been determined to be bankrupt, underfunded or have new ownership with undetermined resources or 3) expertise to complete complex technical problems or 4) corrective action obligations are at large mega-sites.

**Strategy:** Region 6 has developed a multifaceted approach to address major challenges to achieving corrective action goals for the GPRA 2020 baseline facilities. The elements of the strategy have been used successfully since 1999 allowing the Region to always meet or exceed the GPRA yearly goals. The final 2005 and 2008 goals were met or exceeded as well as the interim goals on the trail to the final 2020 goals. Additions and modifications are made to the strategy as is found convenient or necessary.

Of the 412 original 2009 baseline facilities in Region 6, 127 of these sites had construction complete determinations documented at the beginning of FY09. At the end of FY15, 294 (70%) had achieved this milestone indicating excellent progress toward the 2020 goal of 95%. 167 sites were completed in 7 fiscal years or an average of nearly 24 per year which is slightly ahead of the 22 per year projected. There are 108 facilities needed to complete the 95% goal in 5 years or less than 22 per year on an average.

To better track and manage progress of the facilities on the 2020 baseline, the Region has sorted all 423 facilities into three manageable categories (and two subcategories) based on the expected workload requirement for an EPA project manager. The classification of each site is changed as conditions change. For example as the work is completed or the milestone is completed by EPA, the category is changed from an 'A' or 'B' to a C-E. Table 2. is a list of problem sites that have not achieved the CA550: Construction Complete goal and are a priority to the Region along with the category and status. These are of priority for the Region to track because of the amount of resources spent on the sites and/or because of the difficulty the site poses in order to attain the corrective action goals. Facilities that are state lead and do not pose a problem in the cleanup process are not listed here.

The categories are:

- 1) **Category A Sites:** 14 facilities that are: i) 6PD lead sites that were transferred from the Enforcement Division for case closure; ii) bankrupt or underfunded facilities; iii) facilities with questionable technical or financial resources; or iv) EPA lead federal facilities.
- 2) **Category B Sites:** 23 facilities that are: i) State lead sites where the Region is providing the State significant technical assistance and expects to provide future assistance; ii) sites that Texas identified where they had no project manager assigned and were given to EPA as project lead; iii) BRAC sites, iv) some large complex sites.
- 3) **Category C Sites:** 47 facilities that are State lead sites where EPA assistance is expected to be minimal. EPA involvement is expected to be limited to oversight and tracking progress.
- 4) **Category C-D Sites:** 30 facilities that are State lead sites where EPA assistance is expected to be minimal. EPA involvement is expected to be limited to oversight and tracking progress. However, these are sites that are slow moving in the corrective action process or present other difficulties to the state. These are sites identified by states in their individual plans as requiring extra work. These are problematic 'C' Sites that especially need to be monitored for progress.
- 5) **Category C-E Sites (or C-D-E):** 15 facilities that EPA has previously contributed significant technical and/or contractor assistance and returned the site to State lead sites. In other words, the facilities are no longer requiring EPA significant resources but have in the past.

Of the sites listed in Table 2. sixteen (16) sites are identified in orange as problematic meaning that these facilities are not likely to achieve construction complete unless EPA and the states to find innovative solutions. These sites are underfunded, bankrupt or abandoned as well as large complex sites that may not achieve the goal. Another twenty one (21) facilities are identified in yellow in Table 2. of the work plan as requiring extra attention in that they are presently under an EPA order or EPA is partnering with the state by providing resources to the state in the form of technical assistance and/or contract assistance. The two categories overlap. Many times resources are

leveraged and innovative approaches to corrective action are successfully used. Some examples of these case studies are summarized in this work plan in Appendixes 1, 2, and 3.

EPA project managers are assigned, as appropriate, to a subset of the 423 facilities for either direct implementation of project management, technical assistance to the state as needed, or state oversight responsibilities depending upon the workload as described in project categories. Project managers are also responsible for providing and inputting EPA data into the RCRAinfo national database. Table 2 categorizes the more time consuming or difficult sites in a couple of ways to depict future challenges which require additional resources.

### **Additional Significant Efforts to Achieve 2020 GPRA Goals Including Providing Resources to Assist or Partner with States:**

All Region 6 States are authorized for RCRA corrective actions and are recognized as critical partners in meeting GPRA goals. The Region is collaborating with States and assisting them in managing many projects. The following is a summary of other additional resources that have been dedicated to achieving the goals as well as specific activities that the Region is undertaking to ensure we meet the 2020 goals.

- Understanding The Universe - Where are the facilities in the corrective action process, and what do they have left to complete? This is very important to further this process. We have done the following in conjunction with our states:
  - All Region 6 States sent letters to each of their facilities requesting information and have received good responses;
  - This information was used to help plan site-specific activities to meet 2020 goals; and
  - EPA staff and contractors have also conducted extensive file reviews at Texas and Louisiana State offices to obtain information to complete CA725/750 forms and CA400/CA550 memorandums where interim remedies could be considered as final actions.
  - As explained below, all five in Region 6 states have submitted plans and projections regarding the 2020 facilities corrective action status and typically update their projections twice a year.
- Improving Data Quality - to help plan and track 2020 milestones:
  - EPA Region 6 has been working closely with each of its States on RCRAinfo data cleanups over the past several years; and
  - EPA staff and contractor support has been used to conduct file reviews to assist in data cleanup activities on hundreds of facilities to date.

- GPRA Team Approach To Meeting Corrective Action Goals - EPA staff and government contractors work closely with State project managers to provide technical assistance on difficult sites (*i.e.*, large and complex, underfunded, abandoned, bankrupt, *etc*). Assistance is in the form of developing conceptual site models, data gap identification, conducting sampling and analysis, laboratory support, detailed file reviews, Environmental Indicators form completion, and other relevant tasks.
- Grant Restructuring - Region 6 began restructuring performance based grants with each state in 1997 to focus on corrective action final results over the process and in 1999 focused on achieving GPRA commitments (CA725 and CA750). Beginning with the RCRA grants in 2006, specific language was added to require state grant commitments to obtain the site-wide remedy selection (CA400) and construction complete (CA550) determinations.
- Grant Requirements for 2020 Projections and Plans - Grants also require the states to develop specific 2020 plans for meeting the 2020 corrective action goals. All five states have provided projections and information regarding specific sites. Region 6 states indicate that they plan to achieve the targets. The ability to successfully meet the plan cannot be as certain if resources available to EPA and the states are significantly less than when the initiative was started. This appears to be the trend in these difficult financial times.
- Grant Negotiations for the 2020 Challenge - New grant commitment numbers were negotiated for FY09 for each of the corrective action measurements (CA400, CA550, CA725, and CA750). If the states are able to sustain the number of sites committed to in FY09 for future years, then the 2020 goal will be met. The projections and plans submitted for all of the Region 6 states support this approach. See Chart 1. and Table 1. below. Grant progress is tracked through RCRAinfo reports as well as monthly calls, mid and end of the year grant reviews.
- Risk-Based Approach – Region 6 is employs streamlined risk-based performance based corrective action approaches (Texas Risk Reduction Program (TRRP), Oklahoma Risk-based Decision Making guidance, Louisiana Risk Evaluation Corrective Action Program (RECAP), Region 6 Corrective Action Strategy (CAS) and use of innovative investigations and cleanup technologies.
- Performance-Based Remedies - The 2008 edition of Corrective Action Strategy (CAS) emphasizes performance-based remedies using media-specific corrective action objectives to support the performance standards of source removal, treatment or

containment, achievement of regulatory cleanup values or risk-based values. The emphasis is on attaining the Corrective Action Objectives (CAOs) – not on choosing a technology. This approach can assist in promoting flexible remedies at some sites. Examples are: Altus Air Force Base in Oklahoma, Formosa Plastics in Texas, and the PPG (Axial) site in Lake Charles, Louisiana. Region 6 has updated the 2008 CAS in FY15. See <http://www.epa.gov/sites/production/files/2015-09/documents/r6-cas2015.pdf>.

- Flexibility - We are promoting programmatic flexibility through the use of alternative authorities and facility lead agreements to speed up site investigation and cleanups.
- Training - Region 6 conducts training for States and industry on: RCRA fundamentals, completion of Environmental Indicator evaluations, development of conceptual site models, vapor intrusion evaluations, use of innovative technologies for investigation and cleanup, permitting modifications, and moving from interim measures to final corrective actions. The ORCR training “RCRA Corrective Action Training: Getting to YES! Strategies for Meeting the 2020 Vision” was presented in Austin, Texas, in April 2009, and was presented by EPA Region 6 staff in Baton Rouge, Louisiana, in April 2010. Examples of more recent training provided by Region 6 staff include “Institutional and Engineering Controls” and “RCRA Corrective Action Groundwater Remedies”. The latter training was provided to Louisiana in May 2013, Arkansas in December 2013, and New Mexico in 2014. Additional training is provided by the Region as needed or requested pending available resources. Lack of travel funding has curtailed some of these efforts.
- Superfund - Superfund staff/resources are occasionally utilized where focused site assessments and/or removals are needed (bankrupt facilities, under-funded sites, or where our recommendations can help prioritize site clean-ups).
- Enforcement and Permitting Coordination including the National Enforcement Strategy for Corrective Action (NESCA) - In 2010, the National Enforcement Strategy for Corrective Action (NESCA) was finalized which encourages the need for robust communication with our state counterparts. Some examples of NESCA ideas used by Region 6 include: 1) issuance of RCRA 3007 letters to near-bankrupt sites to attain financial status of the corporations (i.e., Benton Creosote) , 2) issuance of 3013 Orders to gather information on closure/NFA status (International Shoe, Motiva), 3) incorporation of "hard schedules" for corrective action milestones ( Formosa Plastics 2012 Amendment 2 to the 3008(h) AOC), 4) inclusion of a financial assurance review as part of our annual Region 6 oversight review of the corrective action and permitting programs, and 5) prioritizing our oversight reviews of state corrective action and permitting program based on environmental justice ratings used in Region 6.
- Environmental Justice (EJ) - The Region 6 RCRA Program Environmental Justice (EJ) strategy describes the goals and methods for incorporating EJ into the day to day operations of our program. The strategy is found in Appendix 4. This will incorporate EJ



into the setting of priorities for oversight reviews of EPA and state lead corrective action activities at facilities. Coordination with each of our states will occur to ensure that appropriate actions are taken for all sites and that disproportionately burdened populations are included to the extent practicable in the decision making process. Staff will be assigned to sites given priority because they are located in areas of concern. Referrals to enforcement or requests for additional support will be prioritized based impact to the areas of concern.

- Increase Communication - In addition to above listed calls and meetings, the Region has increased communication with states and facilities (conference calls, meetings, site visits) to closely track progress, identify potential impediments (technical, financial, regulatory, *etc* ), and identify need for support. Region 6 staff traveled to Lake Charles, LA to visit three GPRA sites (Axiall [PPG], Sasol and Citgo Refinery in January 2014. Region 6 traveled to Baton Rouge, Louisiana, in April 2014 to perform a site visit at the Exide site.
- Continue Planning – As mentioned, close communication with state counterparts is a key factor. A team approach is used in order to solve corrective action issues. State managers, coordinators, and state site project managers are met with or conference calls are held to obtain more details regarding the individual facilities in order to develop individual plans for sites where the Region's technical, contractor, or other resources are needed. Communication, tracking, and oversight are continuing processes. Adjustments to the information in the 2020 work plan are made as new information is obtained.

**Achievement of the 2020 GPRA Corrective Action Goals:** The Achievement of the 2020 GPRA goals for corrective action is dependent on the availability of sufficient resources to undertake the required tasks. This is true for both the state and EPA regional organizations. At present, state and Federal budgets are being cut meaning that the number of staff working on the investigation and cleanup of RCRA facilities on the GPRA baseline are significantly reduced. State and EPA staff have other tasks and non-GPRA sites that are part of their workload that they must address as well which stretches resources even further. The two largest Region 6 states, Texas and Louisiana, have both seen significant reductions in corrective action and other staff in the recent past. Any reductions in grant money to the states will also hamper the progress of investigations and cleanup of sites as well as any reduction in EPA staff and/or

corrective action contract monies. It is essential that sufficient funding be available at all levels in order to meet the 2020 GPRA corrective action goals to progress 95% of the baseline sites to the site-wide construction complete stage

**CA900/999: Performance Standards Attained Goal Added in FY14:**

In FY14, the CA900/999: Performance Standards Attained milestone was added as a GPRA measurement to the Annual Commitment System (ACS) parameters. In FY14, a project was undertaken and completed to correct RCRAinfo errors where the Performance Standards Attained measurement had been entered erroneously entered into the RCRAinfo database system as being attained site-wide. In FY15, a second project was undertaken to enter into RCRAinfo instances where the CA900/999 code needed to be entered but had not been completed. Four states completed the data entry. The Texas data correction project, because of the number of sites to considered, was continued into FY16 and the site reviews are in progress.

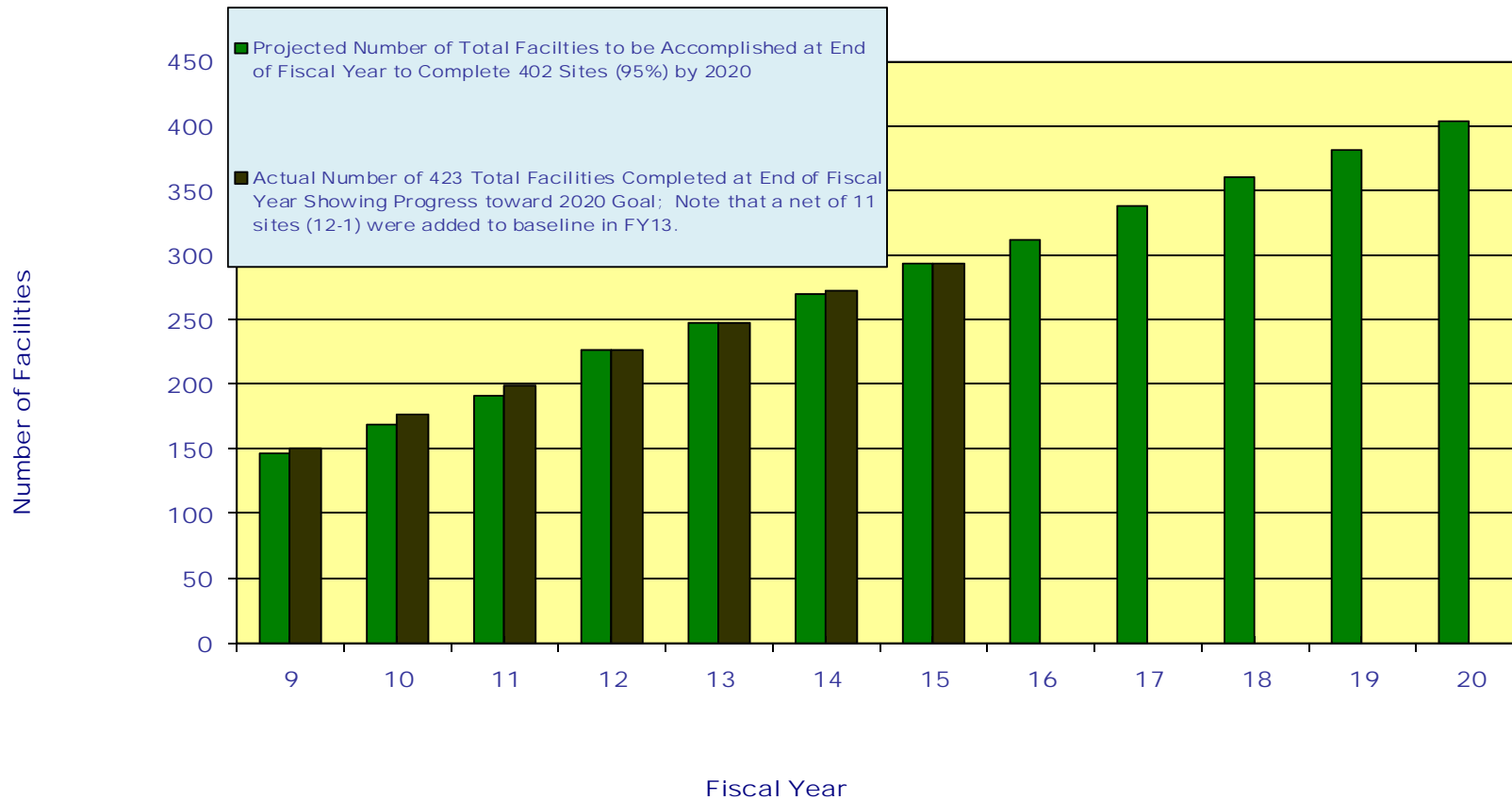
TABLE 1: ORIGINAL (2009) PROJECTED NUMBER OF FACILITIES ACHIEVING RCRA GPRA AND ACTUAL NUMBER AND PERCENT OF 100% (423 FACILITIES) GOAL COMPLETED LISTED BY FISCAL YEAR -

UPDATED 09/30/15

MEASUREMENT	START FY09	FY09	FY10	FY11	FY12	FY13*	FY14	FY15
CA725:	246 (60%)	261 (63%)	276 (67%)	291 (71%)	309 (75%)	324 (79%)	339 (82%)	352 (83%)
HUMAN EXPOSURES		<i>ACTUAL</i> <i>262 (64%)</i>	<i>ACTUAL</i> <i>313 (76%)</i>	<i>ACTUAL</i> <i>328 (80%)</i>	<i>ACTUAL</i> <i>346 (84%)</i>	<i>ACTUAL</i> <i>362 (86%)</i>	<i>ACTUAL</i> <i>375 (89%)</i>	<i>ACTUAL</i> <i>389 (92%)</i>
CA750:	216 (52%)	231 (56%)	246 (60%)	261 (63%)	294 (71%)	309 (75%)	324 (79%)	337 (80%)
GROUND WATER		<i>ACTUAL</i> <i>233 (57%)</i>	<i>ACTUAL</i> <i>251 (61%)</i>	<i>ACTUAL</i> <i>266 (65%)</i>	<i>ACTUAL</i> <i>290 (70%)</i>	<i>ACTUAL</i> <i>309 (73%)</i>	<i>ACTUAL</i> <i>325 (77%)</i>	<i>ACTUAL</i> <i>344 (81%)</i>
CA400:	145 (35%)	165 (40%)	185 (45%)	205 (50%)	248 (60%)	267(65%)	289 (70%)	311 (74%)
REMEDY		<i>ACTUAL</i> <i>173 (42%)</i>	<i>ACTUAL</i> <i>199 (48%)</i>	<i>ACTUAL</i> <i>228 (55%)</i>	<i>ACTUAL</i> <i>257 (62%)</i>	<i>ACTUAL</i> <i>281 (66%)</i>	<i>ACTUAL</i> <i>306 (72%)</i>	<i>ACTUAL</i> <i>325 (77%)</i>
CA550:	127 (31%)	149 (36%)	171 (42%)	193 (47%)	226 (55%)	248 (60%)	270 (66%)	292 (69%)
CONSTRUCTION		<i>ACTUAL</i> <i>151 (37%)</i>	<i>ACTUAL</i> <i>177 (43%)</i>	<i>ACTUAL</i> <i>199 (48%)</i>	<i>ACTUAL</i> <i>226 (55%)</i>	<i>ACTUAL</i> <i>248 (59%)</i>	<i>ACTUAL</i> <i>272 (64%)</i>	<i>ACTUAL</i> <i>294 (70%)</i>

\*Eleven (11) new sites were added changing percentages.

CHART 1: CONSTRUCTION COMPLETE (CA550) TOTAL NUMBER OF FACILITIES PROJECTED  
AND ACTUAL NUMBER OF TOTAL FACILITIES ACHIEVED LISTED BY FISCAL YEAR -  
UPDATED 09/30/15



## **EXPLANATION OF TABLE 2. BELOW:**

Table 2. is not an all-inclusive list. It is meant to depict mainly sites where EPA has the lead, is assisting the state in some capacity, or is doing close oversight of the cleanup. Also included are the facilities which the states have designated as difficult and/or not being projected to meet the CA550 goal in 2020 or beyond. All projections are subject to revision as they are estimated. As facilities in the table achieve the CA550 goal, they are moved to the bottom of the list. Numbers below reflect only the listed sites that have not achieved construction complete. Note that EPA Region 6 has other tables and charts to track the progress of the 2020 facilities toward the goal.

1. **Category A Sites:** 14 facilities that are: i) 6PD lead sites that were transferred from Enforcement for case closure; ii) bankrupt or underfunded facilities; iii) facilities with questionable technical or financial resources; or iv) EPA lead federal facilities. These are the most resource intensive for both technical expertise and EPA contractor work.
2. **Category B Sites:** 23 facilities that are: i) State lead sites where the Region is providing the State significant technical assistance and expects to provide future assistance; ii) sites that Texas identified where they had no project manager assigned and were given to EPA as project lead; iii) BRAC sites, iv) some large complex sites. These sites also require significant EPA resources.
3. **Category C Sites:** 47 facilities remain (not listed here) that are State lead sites where EPA assistance is expected to be minimal. EPA involvement is expected to be limited to oversight and tracking progress.
4. **Category C-D Sites:** 30 facilities that are State lead sites where EPA assistance is expected to be minimal. EPA involvement is expected to be limited to oversight and tracking progress. However, these are sites that are slow moving in the corrective action process or present other difficulties to the state. These are sites identified by states in their individual plans as requiring extra work. These are problematic 'C' Sites that especially need to be monitored.
5. **Category C-E Sites (or C-D-E):** 15 facilities that EPA previously contributed significant technical and/or contractor assistance and returned the site to State lead sites. In other words, the facilities are no longer requiring EPA resources.
6. **Orange designates the most difficult sites that are unlikely to achieve the goals. Presently, 16 facilities. Pink depicts 9 sites projected to achieve the CA550 milestone in the last year of the 2020 time period. These latter sites could 'slip' and not achieve the goal and thus are of concern and will require more oversight.**
7. **21 Yellow sites require extra attention from the Region in that they are being cleaned up under an order or EPA is assisting the state. Note that there is some overlap between colors, i.e. categories.**

TABLE 2: FACILITIES OF CONCERN TO BE ADDRESSED FOR COMPLETION OF REMEDY CONSTRUCTION (CA550): THE A, B, C-D, C-D-E AND C-E SITES

CA550 PROJECTED FY	CATEGORY	BASELINE FACILITIES	EPA ID	COMMENTS
2016	A	Formosa Plastics (Point Comfort)	TXT490011293	EPA LEAD under EPA order. Remedy decision effective March 11, 2010. State is working on newer part of site. Corrective action Order settled June 2012. Groundwater pilot studies in 2013-2014 for ISCO showed promising results. Formosa will complete remedy implementation under a TCEQ Post Closure Order effective in FY 2016.
2016	A	Benton Creosoting Works	LAD008056632	EPA ASSISTANCE: Small site but underfunded. EPA assistance with waste disposal using USACE contractors. EPA assisted LDEQ with an LDEQ Compliance Order issued February 2013. Settlement negotiations are underway pending an appeal.
2016	A	Oklahoma Pole & Lumber	OKD007335524	EPA ASSISTANCE: An underfunded site. EPA used EPA staff and contractors to assess site and advance site. Moving toward remedy selection. EPA will work with ODEQ and property owner to implement a final remedy in 2016, which will consist of capping and groundwater monitoring.
2016	B	American Brownfields Mountain Creek Industrial Center (ABMCIC) was U.S. Naval Weapons Ind. Reserve (Dallas)		CA 400 and CA550 codes have not been achieved due to ecological issues in sediment contamination in Cottonwood Bay and Mt. Creek Lake. ABMCIC just submitted a Monitored Natural Recovery demonstration to TCEQ for the sediments in Cottonwood Bay and Mt. Creek Lake. This is a change from the remedy that was originally approved by TCEQ when ABMCIC obtained the property from the Navy. As for the groundwater, there is a PMZ remedy for the onsite groundwater, which is contaminated with chlorinated

				solvents. ABMCIC conducted a pilot test for the chlorinated groundwater plume located offsite on the NAS Dallas property. ABMCIC has interpreted the results of the pilot test and just recently (10/15) submitted a Technical Impracticability demonstration to TCEQ for the offsite groundwater plume.
2016	B	U.S. Dept Of Army- Lone Star Army Ammunition Depot	TX7213821831	BRAC 2005; TCEQ is the lead regulatory Agency. Majority of the Site was transferred to TexAmericas and Day and Zimmerman in 2010 via a FOSET.
2016	B	Sandia National Lab	NM5890110518	Large complex site; Investigation of the groundwater contamination remains in the characterization stage at the Tijeras Arroyo and Burn Site. The Permit tee has proposed interim measures for TA-V to NMED. A work plan for an interim measure will be submitted to NMED in November 2014. all three sites where groundwater contamination occurs. Final remedies have not been selected or implemented for any of the three sites to date. Mixed waste; public interest. Facility has a RCRA permit for cleanup of SWMUs.
2016	C-D	Occidental Chemical	TXD007325111	CA400 and CA550 has not been achieved yet due to off-site access issues and off-site deed recordation problems. Facility is also pursuing an MSD with the city.
2016	C-D	Koppers Co or Magellan Terminal Holdings	TXD008089021	The Magellan site still has not achieved CA550 due to the construction of a number of large above ground bulk storage tanks at the site. Due to the locations of the new tanks, Magellan is revising the existing response action plan for addressing soil and groundwater contamination at the site. The projected dates are estimated when the RAP will be approved for implementation.
2016	C-D	Motiva Enterprises (Port Arthur)	TXD008097529	CA400 and CA550 codes have not been achieved yet due to facility expansion which has also changed final remedies for the facility.

2016	C-D	Age Refining	TXD049754047	Site has resumed assessment activities (only) after apparently reaching resolution on a division of liability dispute. Lawyers for both sides are currently cooperating, but no sure what future will hold.
2016	C-D	National Oilwell	TXD057425662	Difficulty assessing site due to off-site access issues and in the area of an existing superfund site
2016	C-D	Amarillo Copper Refinery (Amarillo)	TXD087491973	Updated projected dates as ASARCO is conducting additional delineation and they also received some cleanup funds from bankruptcy proceedings..
2016	C-D	Dow Chemical (Texas City) was Union Carbide	TXD000461533	Offsite plume still needs to be stabilized for documentation of CA750 and CA550. Still on track for achievement.
2016	C-D	BNSF or Burlington Northern (Sommerville)	TXD000778621	Facility is still conducting assessment activities and working on baseline risk assessment. Public interest.
2016	C-D-E	Wood Industries, PA (San Antonio)	TXD027070655	Difficulty achieving CA400 and CA550 codes as waste is still onsite. Site is involved with state enforcement program and entity is experiencing financial difficulty paying for cleanup/possible bankruptcy issues. EPA conducted soil and groundwater site assessment in 2012 and will work with EPA Superfund and TCEQ on evaluating cleanup options.
2016	C-E	Texas Instruments Incorporated	TXD982551806	EPA Oversight of VCP Cleanup by State. Site has achieved CA550 but not CA725/CA750.
2016	C-E	NIBCO, Inc.	TXD008092306	The facility completed the requirements for a facility assessment and response action plan conducted under a RCRA 3013 Order. They now plan to conduct remediation through the TCEQ voluntary cleanup program. EPA will continue to monitor progress to ensure GPRAs goals are met at the site.
2016	C-E	MCKINNEY SMELTING INC	TXR000025387	Previously EPA 6PD CASE – State (TCEQ) PM providing direction to the facility. Cleanup activities have been completed, final reports are pending contingent on owner's payments. On track for completion.



2017	A	Plains Terminals Corpus Christi LLC (Encycle Texas)	TXD008117186	EPA ORDER 1999, part of ASARCO Bankruptcy, TCEQ lead overseeing bankruptcy Trustee. Bankruptcy funding (\$9 million) was utilized between 2010 and 2014 to demolish buildings on site and to address contaminated soils. The bankruptcy trustee sold the property to Plains Terminals in March 2014. Plains Terminals placed funds in escrow (\$5 million) to complete remaining regulatory concerns including additional soil removal and to address the sediment in the ship channel.
2017	B	TXI Operations LP	TXD007349327	EPA LEAD - On track to achieve goal.
2017	B	Rhodia, Inc.	TXD008099079	EPA LEAD - On track to achieve goal.
2017	B	Parkans International, LLC	TXD008105959	EPA LEAD - On track to achieve goal.
2017	B	Schenectady International, Inc.	TXD010797389	EPA LEAD - On track to achieve goal.
2017	B	Albemarle Catalysts Company, LP	TXD073920399	EPA LEAD - On track to achieve goal.
2017	C-D	Phillips Components Mineral Wells	TXR000030205	ACTIVE IHWCA PROJECT. FACILITY USED K MNO4 INJECTIONS TO ADDRESS CONTAMINATED GW BUT LOST HYDRODYNAMIC CONTROL OF THE PLUME. THE FACILITY IS RE-DELINEATING THE PLUME. 12/09 UPDATE..FACILITY IS COMPLETING DELINEATION OF OFFSITE GW PLUME..
2017	C-D	Fort Bliss	TX4213720101	Project includes the Castner Range Area (munitions cleanup) currently in initial assessment phase and expected to take several years to complete. Achievement of CA400/550 will be achieved when final response action plan is submitted/approved for this area.
2017	C-D	Laughlin AFB	TX2571524105	CA750, CA400 AND CA550 not yet achieved as Laughlin is still assessing (in RI phase) for some sites. Also will need to finalize remedies via submittal of an application to modify the compliance plan.
2017	C-D	Exxon Company (Baytown)	TXD000782698	Facility unable to achieve CA400/550 codes at this time as they are still in the facility wide assessment stage (step 2).

2017	C-D	Tronox/Kerr McGee(Texarkana)	TXD057111403	CA400 AND CA550 CODES HAVE NOT BEEN ACHIEVED AT THIS FACILITY DUE TO ECOLOGICAL ISSUES INVOLVING IMPACTED SEDIMENTS IN DAYS CREEK. ECO PCLS ARE LOWER THAN HUMAN HEALTH PCLS AND ARE THE CLEANUP DRIVER FOR THE SITE. APAR CURRENTLY INHOUSE FOR REVIEW WITH NRDA TRUSTEES TO EVALUATE ECO ASSESSMENT. FACILITY HAS AN INTERIM GW REMEDY SYSTEM INPLACE. CA400 AND CA550 ACHIEVEMENT IS ALSO DEPENDANT ON PERMIT/CP MODIFICATION APPLICATION AND ISSUANCE FOR FINAL CORRECTIVE MEASURES. (EW 8/08) Bankruptcy judgement, may take state funds to complete CA400 and CA550. May lose CA725 and CA750 codes in 3 years, money will run out and pump and treat may have to shut down. (AAS 8/12)
2017	C-D	Asset Funding also HW Burbank LLC was Evans Harvey Corp, LLC	LAD008158289	LDEQ is finalizing an order requiring investigation.
2017	C-E	U.S. Altus Air Force Base	OK9571824045	PREVIOUS EPA LEAD; unilateral 3008(h) 1996; remedy was selected (CA400 Dec 2007) and site was progressing toward construction complete under the order. HSWA-only state permit effective January 21, 2010, for remedy implementation. EPA Order terminated March 23, 2010. EPA continues to oversee for CA550. Low concentrations of TCE exceeding the MCL have migrated beyond property under control of Altus AFB. Altus secured offsite property under an institutional control, where the property owner has surface rights only. At present there is no human or ecological exposure on this private property and the landowner has been notified. Installed ERD remedies (bioreactors, biowalls, injection wells) are being evaluated/rehabilitated and additional source area treatments are being implemented.

2017	C-E	England Economic Industrial Development was England Air Force Base	LA9572124452	BRAC property transfers completed September 2011. Remediation on three sites with petroleum contamination only remains to be completed under RCRA permit. POL yard remediation completed Oct. 2015. – Has not achieved CA400/CA550.
2018	A	Westlake Vinyls (Borden) Momentive Specialty Chemicals, Inc.	LAD003913449	EPA LEAD: Being cleaned up under a joint EPA/state consent decree. Field scale pilot studies are currently being implemented. <u>The Site is on track to achieve goals.</u>
2018	A	U.S. Dept. Of Army-Camp Stanley	TX2210020739	EPA LEAD under RCRA 3008(h) Order. Continuing site wide remediation including: source removal of contaminated soil, ISCO and in-situ Bioreactor for groundwater restoration. Groundwater plume has migrated off-site at levels slightly above the MCL. The VI pathway has been investigated and there is not a VI issue at the Site. On track to meet GPRA 2020 goals early.
2018	A	Exxon Chemical (Former Houston Chemical Plant)	TXD082684002	EPA LEAD. EPA order (3013) issued Aug' 12 to complete site-wide investigation including off-site groundwater. ExxonMobil conducts semi-annual groundwater monitoring activities on and off site. They have installed several recovery wells and will be installing two recovery trenches along with an on-site groundwater treatment system. These systems are planned to prevent the off-site migration of additional contamination. No final remedy has been selected at this time.
2018	A	Rogers Delinted (Robstown)	TXD980873160	EPA LEAD. The EPA Region 6 used REPA contract funds to delineate contamination at the site in 2013 including groundwater sampling, installing soil borings into a capped pond, and performing surface soil sampling for pH analysis. Currently working with TCEQ to define protective pH level for soils for reuse by site owner, RIDC. Statement of Basis to PN in 2015. <b>Additional sampling planned for 2016.</b>
2018	B	Neches River Treatment Corp.	TXD074204991	EPA LEAD - On track to achieve goal.
2018	B	P Chem, Inc.	TXD098874308	EPA LEAD - On track to achieve goal.

2018	B	Eurecat U.S. Incorporated	TXD106829963	EPA LEAD - On track to achieve goal.
2018	B	Rogers Delinted Cottonseed Co.	TXD981055486	EPA LEAD - On track to achieve goal.
2018	B	Safety-Kleen Systems, Inc.	TXD981056690	EPA LEAD - On track to achieve goal.
2018	B	Big Lake Nash	TXD981150923	EPA LEAD - On track to achieve goal.
2018	B	Clean Harbors Laporte, Lp	TXD982290140	EPA LEAD - On track to achieve goal.
2018	B	Schlumberger Technology Corp.	TXD987988318	EPA LEAD - On track to achieve goal.
2018	B	Dal-Tile Corporation	TXD988032751	EPA LEAD - On track to achieve goal.
2018	B	BOC Group, Inc.	TXR000052175	EPA LEAD - On track to achieve goal.
2018	B	INEOS	TXD086981172	EPA LEAD - On track to achieve goal.
2018	C-D	TAFT-STARwas Union Carbide-Taft Plant	LAD041581422	Facility currently undertaking a facility-wide investigation and remediation.
2018	C-D-E	Western – was Giant Refining Co-Bloomfield	NMD089416416	Clean up was being addressed under 2 orders (State and EPA); slow to progress; release to river was addressed. Orders consolidated into one new State Order in 2007 . EPA continues oversight..
2018	C-E	BARKSDALE AIR FORCE BASE, LOUISIANA	LA9571924050	STATE LEAD/EPA ASSISTANCE
2018	C-E	GTX. Inc. was Marine Shale	LAD981057706	Large site being cleaned up under a joint order. Should progress. EPA and DOJ were involved.
2019	A	Hale Dusting Service, Inc.	TXD057573438	EPA ASSISTANCE: Entity has no funds to support cleanup. EPA Region 6 has been using REPA contract funds to delineate the extent of arsenic contamination. The most recent downgradient well installed in July 2013 also detected hydrocarbon contamination, most likely from the former aviation gas USTs. The EPA was planning to use the USACE contract to cap the HWMU surface impoundment, but the USACE subcontractor cost proposal was much more than anticipated. Once a new IA is in place with the USACE, we may once again consider capping the surface impoundment, which is the source of the arsenic contamination.

2019	A	Motiva Enterprises (Port Neches)	TXD980626022	EPA LEAD under EPA Order. The Order has not been closed out due to a DNAPL plume extending from the Motiva/Huntsman property line beneath Motiva. The adjacent facility, Huntsman Petrochemical, also has a DNAPL plume originating from a SWMU, NOR No. 1 Landfill burn pits. Huntsman/Chevron recently performed an investigation between the Huntsman DNAPL plume and the Motiva DNAPL plume to determine if the Motiva plume also originates from the Huntsman SWMU. EPA is reviewing the Huntsman's investigation report and may issue a new corrective action order in 2016 based on the sampling report results. EPA Region 6 conducted a corrective action inspection in July 2014.
2019	B	Heat Treatment Services	TXD980624035	EPA ASSISTANCE: EPA is providing state with Vapor Intrusion Assistance. Facility has submitted APARs for both onsite and offsite areas and a RAP for the onsite remedy. RAP includes hydraulic barrier preventing offsite migration of contaminated groundwater and vapor mitigation of onsite buildings. RAP for offsite areas expected in 2016.
2019	C-D-E	Ethyl Corp – Baton Rouge	LAD079460895	2019 Projection: EPA provided ground water modeling assistance.
2019	C-E	HELENA CHEMICAL COMPANY	ARD030414494	STATE/EPA ASSISTANCE
2019	C-E	AEROJET-GENERAL CORP	ARD091688283	STATE/ EPA ASSISTANCE
2020	C-D	White Sands Missile Range	NM2750211235	2020 Projection: Remedy selection will be based on investigation results and the final work plan is due 2015. Delays and extensions are likely to extend the 2015 date for submittal of the final work plan. In November 2015, NMED issued a draft permit modification for five SWMUs as corrective action complete.
2020	C-D	Cannon Air Force Base	NM7572124454	2020 Projection: Cannon Air Force Base continues to investigate potential contamination, initiate contaminant removal actions, and conduct long-term ground water monitoring at the facility.

2020	C-D	Western Refining Southwest - Gallup	NMD000333211	2020 Projection: Gallup is currently investigating several SWMUs and AOCs with some in second and third phases of investigation. A compliance schedule and new AOCs included the permit are the subject of an appeal.
2020	C-D	Navajo Refining Company	NMD048918817	2020 Projection: Gallup is currently investigating several SWMUs and AOCs with some in second and third phases of investigation. A compliance schedule and new AOCs included the permit are the subject of an appeal.
2020	C-D	Tinker AFB	OK1571724391	2020 Projection: Ground water not delineated as of yet.
2020	C-D	Wynnewood Refining	OKD000396549	2020 Projection: Offsite ground water. Order to address by 2018.
2020	C-D	Holly Refining - Tulsa	OKD990750960	2020 Projection: Offsite ground water to south and west still being assessed.
2020	C-D	Safety-Kleen Systems, Inc.	TXD077603371	2020 projection: Encountering offsite access problems which are hampering assessment activities.
2020	C-D	Safety-Kleen Systems, Inc.	TXD083145656	2020 Projection: Active ihwca project (response due late letter issued by tceq 11/24/2003 required information verifying assessment of off-site soil contamination associated with release investigation of an inactive waste solvent tank. Facility experiencing problems obtaining offsite access to verify extent of contaminated soils/also bankruptcy problems. New pm assigned to obtain current status of investigation (8/08). Active rcra permit.

2021	B	Fort Wingate Depot	NM6213820974	BRAC - Large site; transfer to tribes in future. RFI work ongoing under NMED RCRA closure-post-closure permit. To date, 8353 acres (40% of facility) have been approved for No Further Action; another 30% is under current reuse by the Missile Defense Agency. Groundwater plumes (explosives and nitrates) are being delineated. Major munitions removal project began Spring 2013. Facility remediation plan was accelerated by Army in late 2014, with 2020 goal for completion. Legal dispute over munitions magazines RCRA authority remains unresolved.
2021	C-D	Citgo Petroleum Corp., Lake Charles Refinery	LAD008080350	EPA site visit in January 2014: Large highly contaminated complex site.
2021	C-D	Detrex Corporation	TXD980626154	Entity experiencing cleanup funding problems. Potential vapor intrusion issues.
2021	B	Kirtland AFB	NM9570024423	State Lead. EPA technical support including ground water modeling assistance for the fuel spill. Corrective action required in RCRA permit. Characterization and remediation efforts for Sites ST-106 and SS-111 (Bulk Fuels Facility Spill) lag behind those for other sites at KAFB. It is anticipated that these particular SWMUs will control completion of corrective action at this facility. The fuel spill is estimated to be between 6 and 24 million gallons in volume and reached the regional aquifer ~500 feet deep. Interim measures have been implemented including soil vapor extraction, soil excavation and groundwater pump and treat. The interim pump and treat system will be expanded to three wells by the end of 2015 and up to eight wells by the end of 2016 for a total of up to ~800 gpm. Other interim measure pilot tests are planned to target the LNAPL source area including air sparging, bioventing and biological treatment. NMED does not expect final remedy selection to be completed until 2019 and anticipates substantial public comment and a public hearing.

2022	A	The Dow Chemical Company	LAD008187080	EPA ASSISTANCE: Large complex site with complex issues. Permit renewal was appealed. Off site vinyl chloride plume addressed under an EPA and LDEQ and Dow Cooperative Agreement.
2024	C-D	Chevron Oronite Co.	LAD034199802	Still under investigation: Batture area next to Mississippi River contaminated.
2029	C-D-E	U.S. NASA Michoud Space Systems	LAD800014587	Investigation completed, facility will do thermal desorption pilot study for the TCE plume. State requested EPA assistance with plan and report which was provided.
>2020	A	Parker Solvents Company (Little Rock)	ARD035565068	EPA ENF LEAD: Large offsite plume; EPA and ADEQ investigated vapor intrusion issues and found not to exist; underfunded site. State referred to EPA Enforcement. EPA issued a RCRA 3013 AO in September 2013 to conduct sampling to identify current status of contamination. Initial sampling has been completed and a site wide sampling event will be completed on November 6 <sup>th</sup> 2014. Parker Solvents' consultants will complete and submit the final report within 60 days of final sampling event.



>2020	A	Lazarus Refinery was Gregg County Refining was Longview Refining (Longview)	TXD045586187	EPA LEAD; EPA Region 6 used its REPA contractor to conduct an investigation (April 2014) at the site which included groundwater, soil, and sediment sampling and groundwater monitoring well installation. The sampling results indicated that further investigations will be needed to delineate the contamination. The RCRA permits/corrective action branch has forwarded all sampling results (plus other historical site information) to the RCRA enforcement branch to be used in additional enforcement actions. In June 2015, Gregg County Refining quitclaim deeded the property to Lazarus Refining. The RCRA enforcement division has drafted a corrective action administrative order. This draft order specifies all corrective actions needed to be conducted by Lazarus. Currently, the Region 6 RCRA enforcement division is negotiating with Lazarus on the scope and cleanup schedule for the final order on consent. The timeframe to complete these negotiations is December 15. If negotiations are unsuccessful, then a unilateral order will be issued by DOJ.
>2020	A	Elementis Chromium LTP	TXD098818339	EPA ENF LEAD: Corrective action conducted via EPA CONSENT DECREE and state orders to address chromium contamination. The CA725 checklist was completed by TCEQ; EPA order covers eastern portion. A barrier wall was installed in December 2009 to prevent releases to the ship channel. Additionally, a Unilateral Administrative order was issued in October 2011 to address chlorinated solvent contamination. Elementis, has defined the extent of contamination, based on communications with the company as late as 11-12-2014. Interim measures consisting of a sheet pile barrier wall tied into the substrate, withdrawal wells for contaminated groundwater, recovery wells for hydrocarbons, and a waste water treatment system are in place. A revised timeline and status report are planned for future actions.

>2020	B	DOE Los Alamos National Lab	NM0890010515	Mega site, over 1000 SWMUs; mixed waste; great public interest. The site has a RCRA permit and a State Corrective Action Order for the cleanup of the SWMUs. The site has a hexavalent chromium groundwater plume that is being investigated/delineated. LANL originally installed pilot pumping wells to hydraulically control the plume; however these wells are currently not operating. In October 2015, LANL completed an offsite monitoring well on San Ildefonso property. Sampling results indicated no chromium contamination. However, it should be noted that this well is actually located cross-gradient to the plume, as the best locations for a down gradient monitoring well were located on culturally sensitive areas of the Pueblo.
>2020	C-D	VALERO REFINING CO NEW ORLEANS	LAD062644778	CODED AS CA550OF: Headquarters not giving credit.
>2020	C-D	Olin Chlor Alkali Products	LAD062666540	CODED AS CA550OF: Headquarters not giving credit.
>2020	C-D	US Air Force Melrose Range	NM5572124456	POTENTIAL TO BE CODED AS CA550OF: Deferred as an active military range. NMED deferred the submittal of a facility-wide investigation work plan in a letter dated June 19, 2007. Headquarters may not give credit.
>2020	C-D-E	Marshall Holdings (Monarch Tile) (Marshall)	TXD008041048	WAS EPA LEAD. Site referred to EPA informally in April 2004. Formerly Monarch Tile. Under funded. Sent back to TCEQ. State Superfund is conducted a PA/SI at the Site. There are signs posted at the site about the potential heavy metal contamination in soils. There is a state Superfund Site downgradient of the Site.
>2020	C-D-E	Walker Wood Preserving Co.	TXD026042168	EPA ASSISTANCE: EPA is providing state with Vapor Intrusion Assistance. Facility has submitted APARs for both onsite and offsite areas and a RAP for the onsite remedy. RAP includes hydraulic barrier preventing offsite migration of contaminated groundwater and vapor mitigation of onsite buildings. RAP for offsite areas expected in 2016.

X-COMPLETED	A	Chalmette Refining, LLC	LAD008179707	EPA LEAD AGENCY; being cleaned up under an EPA order. Proposed remedy selection to Public Notice Aug 2012. EPA issued 3008(h) for remedy implementation in 2013. A Construction Complete determination has been completed. The 3008(h) order for the implementation of the remedy was signed on September 15, 2014. The first Corrective Action Report has been approved by EPA and the annual requirement that sufficient financial assurance for corrective actions has also been approved. It should be noted that Exxon Mobil (50% shares) and the country of Venezuela (50 % shares) sold their Chalmette Refining shares to PBF Holding Company, LLC. A revised financial assurance document for the corrective actions has recently been submitted to EPA for approval.
X-COMPLETED	B	Safety-Kleen Systems, Inc.	TXD000747402	
X-COMPLETED	B	South Texas Redi-Strip	TXD980879076	
X-COMPLETED	C-D	Force	TXD000633453	
X-COMPLETED	C-D	Equistar Chemicals, LP	TXD058275769	
X-COMPLETED	C-D	Wright Way Spraying Service	TXD981605868	
X-COMPLETED	C-D	Phillips 66 - ConocoPhillips Refinery (Alliance)	LAD056024391	
X-COMPLETED	C-D	Baker Petrolite incl. Cook	TXD000807875	

X- COMPLETED	C-D	Flint Hills was Huntsman Petrochemical Corp (Port Arthur)	TXD000820928	.
X- COMPLETED	C-D	Delek Refining was LaGloria Oil	TXD007333800	.
X- COMPLETED	C-D	EI DuPont de Nemours	TXD008079212	
X- COMPLETED	C-D	Arkema, Inc. (Total)	TXD008085185	
X- COMPLETED	C-D	Ethyl Corp (Pasadena)	TXD008096158	
X- COMPLETED	C-D	EI DuPont de Nemours	TXD063101794	
X- COMPLETED	C-D	Bell Helicopter (Hurst)	TXD980626006	
X- COMPLETED	C-D	The Premcor Refining (Port Arthur)	TXD008090409	

X-COMPLETED	C-D-E	Huffman Wood Preserving	OKD053128492	Site was abandoned and cleaned up with limited financial assurance money and innovative approaches. EPA assistance was provided by staff, contractor, and EPA laboratories. Construction complete was accomplished in 2013.
X-COMPLETED	C-D-E	Greenway Environmental, Inc.	OKD089761290	Site was abandoned and was investigated with limited financial assurance money. EPA assisted with contract funds, grant funds, and technical assistance using EPA staff. Site was found not to be RCRA contaminated. EPA and ODEQ are made a Ready for Reuse Determination for Wagoner County to aid in the future redevelopment of the property. The property has now been leased by the county and is being reused as a commercial operation.
X-COMPLETED	C-E	REMINGTON ARMS CO	AR0000064311	STATE/EPA ASSISTANCE
X-COMPLETED	C-E	THE COLONELS FACTORY OUTLET OF ARK INC	ARD035663301	STATE/EPA ASSIST/BANKRPT
X-COMPLETED	C-E	THE COLONEL FACTORY OUTLET OF AR INC	ARD980621288	STATE/EPA ASSIST/BANKRPT
X-COMPLETED	C-E	Sparton Technologies	NMD083212332	[Joint EPA/NMED oversight of Consent Decree] - CA400 1996; groundwater remediation system upgraded 2010 and operating well. GW modeling predicts remediation to extend to 2027
X-COMPLETED	C-E	SHEFFIELD- GERDAU AMERISTEEL SAND SPRINGS WAS SHEFFIELD STEEL CORP.	OKD007219181	STATE/EPA ASSISTANCE
X-COMPLETED	C-E	U.S. Dept Navy – Carswell	TX0571924042	BRAC – CA550 Achieved 7/21/2006.
X-COMPLETED	C-E	Red River Army Depot	TX3213820738	BRAC – CA550 achieved 10/11/2009

X-COMPLETED	C-E	U.S. DOE Pantex Plant	TX4890110527	Part federal superfund: achievement of CA400 and CA550 was dependent on issuance of ROD and permit modification.. Facility has achieved goal.
X-COMPLETED	C-E	U.S. Dept Of AF-DRMO	TX6570024939	BRAC - CA550 Achieved 2/10/2006.
X-COMPLETED	C-E	U.S. Dept Of AF-Reese	TX8571524091	BRAC-COMPLETED TRANSFER, Groundwater remediation complete under State compliance plan, but continues under EPA 7003 Order. AF expects to finish remediation by the end of 2014. Facility has achieved goal.
X-COMPLETED	C-E	Safety-Kleen Systems, Inc.	TXD000729400	EPA LEAD – CA550 Achieved
X-COMPLETED	C-E	Safety-Kleen Systems, Inc.	TXD000747378	EPA LEAD - CA550 Achieved.
X-COMPLETED	C-E	Safety-Kleen Systems, Inc.	TXD000747394	EPA LEAD - CA550 Achieved
X-COMPLETED	C-E	Safety-Kleen Altair, Inc.	TXD000747410	EPA LEAD - CA550 Achieved
X-COMPLETED	C-E	Air Force Base Conv-Eaker	AR8571924473	BRAC – CA550 achieved 09/13/2002.
X-COMPLETED	C-E	Base Transition Team - Ft Chaffee	AR9210020187	BRAC - CA550 achieved 11/20/2003
X-COMPLETED	C-E	MicroChemical Company	LAD008181927	EPA WAS LEAD AGENCY; cleaned up under an EPA order. Remedy selection/ Construction complete under EPA order in 2012. EPA order closeout and post closure monitoring and maintenance to begin under LDEQ permit or order in 2015.
X-COMPLETED	C-E	Dixie Metals Corp	LAD055792097	EPA ENFORCEMENT/STATE : Site achieved goals due to EPA technical and contractor assistance.
X-COMPLETED	C-E	AMAX METALS RECOVERY, INC	LAD058472721	STATE/EPA ASSISTANCE: Achieved goals.

X-COMPLETED	C-E	General Electric Company Apparatus Service	NMD047140256	EPA ENFORCEMENT/STATE CA 400/550 complete September 2007.
X-COMPLETED	C-E	US AIR FORCE PLANT #3 MCDONNELL DOUGLAS	OK9570000001	STATE/EPA DELISTING OF WASTE FOR REMOVAL. Facility has achieved goal.
X-COMPLETED	C-E	Mixon Brothers Wood Preserving	OKD007336258	. EPA-assisted permit renewal issued by State. New permit includes corrective action, which is in place. Site has achieved goal.
X-COMPLETED	C-E	US GOVERNMENT NAVY FACILITY-McGREGOR	TX9170024708	STATE/EPA ASSISTANCE: There is an ongoing perchlorate cleanup using permeable reactive barriers . Facility achieved CA550 goal.
X-COMPLETED	C-E	Tm Deer Park Services, LLP	TXD000719518	EPA LEAD – achieved goal.
X-COMPLETED	C-E	Safety-Kleen Systems, Inc.	TXD000747428	EPA LEAD – Achieved goal
X-COMPLETED	C-E	AK Steel Corporation	TXD000802959	EPA LEAD - achieved goal.
X-COMPLETED	C-E	Gulf Coast Waste Disposal Authority	TXD000835249	EPA LEAD - achieved goal.
X-COMPLETED	C-E	International Shoe Co. (Bryan)/Furniture Brands	TXD008071227	EPA LEAD under EPA order. 1990 Consent Order was terminated in May 2012. 2009 Administrative Order on Consent (3013) was terminated in July 2012. Site wide remedy of No Further Action was selected. Facility has achieved all GPRA goals.
X-COMPLETED	C-E	Disposal Properties, LLC	TXD052649027	EPA LEAD – Achieved goal
X-COMPLETED	C-E	Set Environmental, Inc.	TXD055135388	EPA LEAD - achieved goal.
X-COMPLETED	C-E	Chaparral Steel Midlothian, LP	TXD066362559	EPA LEAD - achieved goal.
X-COMPLETED	C-E	UT Southwestern Medical	TXD071378822	EPA LEAD - achieved goal.

X-COMPLETED	C-E	ISO-TEX INC	TXD072206311	STATE/EPA ASSISTANCE; Site achieved goal because of EPA technical and contractor assistance.
X-COMPLETED	C-E	PPG Industries, Inc.	TXD078552932	EPA LEAD - CA550 Achieved
X-COMPLETED	C-E	Vopak Logistics Services USA	TXD097673149	EPA LEAD - CA550 Achieved
X-COMPLETED	C-E	GALVESTON ENVIRONMENTAL SERVICES INC	TXD980628028	STATE/EPA ASSISTANCE: Site achieved goals due to EPA technical and contractor assistance.
X-COMPLETED	C-E	Safety-Kleen Systems, Inc.	TXD980876015	EPA LEAD - achieved goal.
X-COMPLETED	C-E	Safety-Kleen Systems, Inc.	TXD981053416	EPA LEAD - Achieved goal
X-COMPLETED	C-E	Duratherm, Inc.	TXD981053770	EPA LEAD – Achieved goals.
X-COMPLETED	C-E	Alpha Omega Recycling, Inc.	TXD981514383	EPA LEAD - achieved goal.
X-COMPLETED	C-E	BP-WAS INEOS USA LLCINNOVENE USA LLC	TXD000751172	STATE/EPA TX47: achieved goals
X-COMPLETED	C-E	Southwestern Refining Co.	TXD000807859	EPA LEAD - <del>Achieved goal</del>
X-COMPLETED	C-E	WHITE LION HOLDINGS LLC (VISION METALS)	TX8571524091	STATE/EPA ASSISTANCE: Facility has achieved CA550 but not CA725 or CA750.
X-COMPLETED	C-E	FMC Corporation	TXD083570051	EPA LEAD - achieved goal.
X-COMPLETED	C-E	Heritage Environmental Services	TXD987995941	EPA LEAD - achieved goal.
X-COMPLETED	C-E	Baylor College Of Medicine	TXD988070082	EPA LEAD - achieved goal.



X- COMPLETED	C-E	Lonestar Ecology was Bayport Processing- was Houston Chemical Services,	TXD010791184	The RCRA permit states that EPA/TCEQ co-review of RFI related documents are required (EPA issued order) EPA transferred to State for corrective action. CA550 achieved. Needs CA750.
X- COMPLETED	C-E	Kelly AFB (San Antonio)	TX2571724333	BRAC - Final remedies are in place and operating (OPS). Facility was transferred to Port San Antonio in 2010. Groundwater monitoring and remediation are ongoing and will continue for many years. State Compliance Plan in place. Facility has achieved goal.
X- COMPLETED	C-D	The Lubrizol	TXD041067638	CA400 and CA550 achieved.

TABLE 3: Categorization of More Difficult or Time Consuming Baseline Facilities

	DIFFICULT OR TIME CONSUMING BASELINE FACILITIES	EPA ID	CATEGORIES	NAICS_DESCRIPTION
A	Elementis Chromium LTP (American Chrome & Chemicals)	TXD098818339	ENFORCEMENT CASE	ALL OTHER BASIC INORGANIC CHEMICAL MANUFACTURING
A	Benton Creosoting Works	LAD008056632	UNDERFUNDED	WOOD PRESERVATION
A	Chalmette Refining, LLC	LAD008179707	ENFORCEMENT CASE	PETROLEUM REFINERIES
A	Encycle Texas (Corpus Christi)	TXD008117186	ENFORCEMENT CASE	HAZARDOUS WASTE TREATMENT AND DISPOSAL
A	Ethyl Corp (Baton Rouge)	LAD079460895	COMINGLED DEEP AQUIFER PLUMES	ALL OTHER BASIC INORGANIC CHEMICAL MANUFACTURING
A	Exxon Chemical (Houston)	TXD082684002	ENFORCEMENT CASE	ALL OTHER MISCELLANEOUS CHEMICAL PRODUCT AND PREPARATION MANUFACTURING
A	Formosa Plastics (Point Comfort)	TXT490011293	ENFORCEMENT CASE	PLASTICS MATERIAL AND RESIN MANUFACTURING
A	Greenway Environmental	OKD089761290	UNDERFUNDED/ABANDONED	HAZARDOUS WASTE TREATMENT AND DISPOSAL
A	Hale Dusting Service, Inc.	TXD057573438	UNDERFUNDED	SOIL PREPARATION, PLANTING, AND CULTIVATING ( Crop dusting)
A	Heat Treatment Services	TXD980624035	VAPOR INTRUSION ISSUES	HAZARDOUS WASTE TREATMENT AND DISPOSAL
A	Huffman Wood Preserving	OKD053128492	UNDERFUNDED/ABANDONED	WOOD PRESERVATION
A	International Shoe Co. (Bryan)/Furniture Brands	TXD008071227	ENFORCEMENT CASE	GENERAL FREIGHT TRUCKING, LOCAL
A	Longview Refining (Longview)	TXD045586187	UNDERFUNDED/ABANDONED	PETROLEUM REFINERIES
A	McKinney Smelting	TXR000025387	PAST ENFORCEMENT CASE	IRON FOUNDRIES
A	Motiva Enterprises (Port Neches)	TXD980626022	ENFORCEMENT CASE	PETROLEUM REFINERIES
A	NIBCO, Inc.	TXD008092306	ENFORCEMENT CASE	INDUSTRIAL VALVE MANUFACTURING
A	Oklahoma Pole & Lumber	OKD007335524	UNDERFUNDED	WOOD PRESERVATION
A	Rogers Delinted (Robstown)	TXD980873160	UNDERFUNDED/ABANDONED	POSTHARVEST CROP ACTIVITIES (EXCEPT COTTON GINNING)

	<b>DIFFICULT OR TIME CONSUMING BASELINE FACILITIES</b>	<b>EPA ID</b>	<b>CATEGORIES</b>	<b>NAICS_DESCRIPTION</b>
<b>A</b>	<b>Parker Solvents Company (Little Rock)</b>	ARD035565068	ENFORCEMENT CASE	. ALL OTHER MISCELLANEOUS CHEMICAL PRODUCT AND PREPARATION MANUFACTURING
<b>A</b>	<b>The Dow Chemical Co.</b>	LAD008187080	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP.	ALL OTHER BASIC ORGANIC CHEMICAL MANUFACTURING
<b>B</b>	<b>Walker Wood Preserving</b>	TXD026042168	UNDERFUNDED/ABANDONED	WOOD PRESERVATION
<b>B</b>	<b>Westlake Vinyls (Borden)</b>	LAD003913449	ENFORCEMENT CASE	PETROCHEMICAL MANUFACTURING
<b>B</b>	<b>Fort Wingate Depot</b>	NM6213820974	FEDERAL FACILITY - BRAC - COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP: TRANSFER TO NATIVE AMERICANS IN FUTURE.	NATIONAL SECURITY
<b>C-D</b>	<b>Sandia National Lab</b>	NM5890110518	FEDERAL FACILITY -COMLEX LARGE SITE WITH MIXED WASTE AND PUBLIC INTEREST.	NATIONAL SECURITY
<b>C-D</b>	<b>U.S. NNSA/DOE Los Alamos National Lab</b>	NM0890010515	FEDERAL FACILITY -COMLEX LARGE SITE WITH MIXED WASTE AND PUBLIC INTEREST.	NATIONAL SECURITY
<b>C-D</b>	<b>Age Refining</b>	TXD049754047	LIABILITY DISPUTE IN PAST.	PETROLEUM REFINERIES
<b>C-D</b>	<b>Amarillo Copper Refinery (Amarillo)</b>	TXD087491973	PREVIOUS BANKRUPTCY ISSUES: COMPLEX WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP:	PRIMARY SMELTING AND REFINING OF COPPER
<b>C-D</b>	<b>Arkema, Inc. (Total)</b>	TXD008085185	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP: OFFSITE PLUME	ALL OTHER MISCELLANEOUS CHEMICAL PRODUCT AND PREPARATION MANUFACTURING
<b>C-D</b>	<b>Baker Petrolite incl. Cook</b>	TXD000807875	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP.	ALL OTHER MISCELLANEOUS CHEMICAL PRODUCT AND PREPARATION MANUFACTURING
<b>C-D</b>	<b>Bell Helicopter (Hurst)</b>	TXD980626006	ECOLOGICAL ASSESSMENT ISSUES	AIRCRAFT MANUFACTURING
<b>C-D</b>	<b>BNSF or Burlington Northern (Sommerville)</b>	TXD000778621	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP.	WOOD PRESERVATION
<b>C-D</b>	<b>Chevron Oronite Co.</b>	LAD034199802	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP.	PETROLEUM REFINERIES
<b>C-D</b>	<b>ConocoPhillips Refinery (Alliance)</b>	LAD056024391	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP.	PETROLEUM REFINERIES
<b>C-D</b>	<b>Delek Refining was LaGloria Oil</b>	TXD007333800	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP	ALL OTHER BASIC ORGANIC CHEMICAL MANUFACTURING
<b>C-D</b>	<b>Detrex Corporation</b>	TXD980626154	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP.VAPOR INTRUSION ISSUES	PETROCHEMICAL MANUFACTURING

	<b>DIFFICULT OR TIME CONSUMING BASELINE FACILITIES</b>	<b>EPA ID</b>	<b>CATEGORIES</b>	<b>NAICS_DESCRIPTION</b>
C-D	<b>Dow Chemical (Texas City) was Union Carbide</b>	TXD000461533	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP: OFFSITE PLUME	INDUSTRIAL GAS MANUFACTURING
C-D	<b>El DuPont de Nemours</b>	TXD063101794	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP. POTENTIAL VAPOR INTRUSION	ALL OTHER BASIC ORGANIC CHEMICAL MANUFACTURING
C-D	<b>El DuPont de Nemours</b>	TXD008079212	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP	ALL OTHER BASIC ORGANIC CHEMICAL MANUFACTURING
C-D	<b>Equistar Chemicals, LP</b>	TXD058275769	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP	ALL OTHER BASIC ORGANIC CHEMICAL MANUFACTURING
C-D	<b>Ethyl Corp (Pasadena)</b>	TXD008096158	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP	PETROLEUM REFINERIES
C-D	<b>Exxon Company (Baytown)</b>	TXD000782698	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP: FOA	ALL OTHER BASIC ORGANIC CHEMICAL MANUFACTURING
C-D	<b>Flint Hills was Huntsman Petrochemical Corp (Port Arthur)</b>	TXD000820928	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP	PETROLEUM REFINERIES
C-D	<b>Fort Bliss</b>	TX4213720101	FEDERAL FACILITY: COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP. POTENTIAL VAPOR INTRUSION	NATIONAL SECURITY
C-D	<b>HW Burbank LLC was Evans Harvey Corp, LLC</b>	LAD008158289	UNDERFUNDED	PAINT AND COATING MANUFACTURING
C-D	<b>Laughlin AFB</b>	TX2571524105	FEDERAL FACILITY: COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP. POTENTIAL VAPOR INTRUSION	NATIONAL SECURITY
C-D	<b>Magellan Terminal Holdings</b>	TXD008089021	PLANT EXPANSION UNCOVERED AND SPREAD CONTAMINATION.	PETROLEUM BULK STATIONS AND TERMINALS
C-D	<b>Motiva Enterprises (Port Arthur)</b>	TXD008097529	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP	CYCLIC CRUDE AND INTERMEDIATE MANUFACTURING
C-D	<b>National Oilwell</b>	TXD057425662	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP: OFFSITE ACCESS ISSUES	PETROLEUM REFINERIES
C-D	<b>Occidental Chemical</b>	TXD007325111	OFFSITE DEED RECORDATION PROBLEMS	ALL OTHER BASIC INORGANIC CHEMICAL MANUFACTURING
C-D	<b>Safety-Kleen Systems, Inc.</b>	TXD077603371	OFFSITE ACCESS ISSUES TO CHARACTERIZE PLUME.	HAZARDOUS WASTE TREATMENT AND DISPOSAL

	<b>DIFFICULT OR TIME CONSUMING BASELINE FACILITIES</b>	<b>EPA ID</b>	<b>CATEGORIES</b>	<b>NAICS_DESCRIPTION</b>
C-D	<b>TAFT-STAR was Union Carbide-Taft</b>	LAD041581422	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP	ALL OTHER BASIC ORGANIC CHEMICAL MANUFACTURING
C-D	<b>The Lubrizol</b>	TXD041067638	COMPLEX: WIDESPREAD CONTAMINATION AND/OR NUMEROUS SWMUs TO CLEAN UP	ALL OTHER BASIC ORGANIC CHEMICAL MANUFACTURING
C-D	<b>The Premcor Refining (Port Arthur)</b>	TXD008090409	ONGOING PROPERTY DISPUTES/LEGAL ISSUES BETWEEN PREMCOR AND CHEVRON	PETROLEUM REFINERIES
C-D	<b>Tronox/Kerr McGee (Texarkana)</b>	TXD057111403	ECOLOGICAL ISSUES WITH CREEK SEDIMENTS	WOOD PRESERVATION
C-D-E	<b>Wood Industries, PA (San Antonio)</b>	TXD027070655	UNDERFUNDED -PREVIOUS RECYCLER	GENERAL FREIGHT TRUCKING, LOCAL
C-D-E	<b>Wright Way Spraying Service</b>	TXD981605868	UNDERFUNDED-PESTICIDES	SOIL PREPARATION, PLANTING, AND CULTIVATING ( Crop dusting)
C-D-E	<b>Cedar Chemical Company (W.Helena)</b>	ARD990660649	COMPLEX SITE: IN PROCESS OF BEING LISTED ON NPL	OTHER BASIC ORGANIC CHEMICAL MANUFACTURING
C-D-E	<b>Marshall Holdings (Monarch Tile) (Marshall)</b>	TXD008041048	UNDERFUNDED	CERAMIC WALL AND FLOOR TILE MANUFACTURING
C-D-E	<b>Western – was Giant Refining Co-Bloomfield</b>	NMD089416416	COMPLEX SITE	PETROLEUM REFINERIES

## ADDENDUM 1

### ***Huffman Wood Preserving and Oklahoma Pole and Lumber Facilities, Broken Bow, Oklahoma***

EPA Region 6 RCRA project team took two corrective action sites that were stalled in being cleaned up and used innovation in finding funds, technology and resources to get the sites cleaned up and back in productive use in the community. Both facilities had lingered in the corrective action pipeline for over ten years with little or no activity. EPA, ODEQ and the other stakeholders are working together to creatively leverage resources to complete site investigation and cleanup activities at these facilities and put them back into productive use.

Huffman Wood Preserving, Inc. (HWP) and Oklahoma Pole and Lumber Company (OPLC) are two wood treating facilities located in Broken Bow, Oklahoma, and approximately half a mile apart. Both facilities are on the GPRA RCRA 2020 baseline and bankrupt/underfunded. HWP is a 25-acre facility that treated fence posts and other wood products with creosote and pentachlorophenol. The facility operated from 1956 until 1984. In 1989, the now-deceased owner closed 5 unlined surface impoundments under state authority, and set aside approximately \$120,000 in financial assurance for future site work. The owner passed away in 1991 and the facility was purchased by an adjacent property owner to house his small welding shop. Several acres of the site were used by Oklahoma Pole and Lumber as a laydown yard for untreated poles but this practice will be discontinued. The facility sits atop a recharge zone for the Antlers Aquifer.

OPLC is a 26-acre site that was initially owned by Thomason Lumber and Timber Company, Inc. The facility operated from the late-60's to late-90's. Thomason abandoned the site in 1999, leaving behind two closed surface impoundments, 15 wells, and possible soil contamination. The site was purchased by OPLC, who took over the deed and liability for the property in June of 2000. In June 2002, OPLC abandoned the facility. The facility remained abandoned through 2004. OPLC resumed treatment operations at the facility in early 2005. Currently, OPLC is operating the facility, but has limited cash flow/resources to conduct site investigation and any cleanup.

Region 6 project team members were innovative in collaborating with numerous stakeholders to achieve investigation and cleanup at these financially troubled sites. The culmination of the corrective action process has been the result of partnerships between EPA Region 6 (Dallas), EPA ORD's lab in Ada, Oklahoma, EPA OSWER's Technology Innovation Office, Region 6's Houston Lab, Oklahoma DEQ, the Army Corps of Engineers, the City of Broken Bow, and the facility owners. All investigation and cleanup activities are expected to be completed within the next year.

The specific external resources leveraged over the course of the project included the following:

- Technology Innovation Office provided funding and TRIAD technical assistance to Region 6 and ADA Lab to develop a site assessment plan.

- City of Broken Bow provided resources to clear brush in order for sampling to take place. In addition, the City provided heavy equipment/operators for trenching as part of sampling activities and disposed of purge water via the City's POTW. The City also provided a water truck for decontamination and other sampling work, and a vacuum tanker truck for purge and decon water.
- Region 6 staff and its contractors conducted soil and groundwater sampling at OPLC and HWP.
- The Houston Lab provided analysis for the soil and groundwater samples collected at HWP.
- USACE (via an IAG with Region 6) installed groundwater monitoring wells at HWP to characterize the deeper regional groundwater aquifer.
- OPLC's contractors conducted groundwater sampling and analysis of HWP's monitoring wells.
- OPLC provided equipment and manpower to conduct soil removal at both OPLC and HWP. HWP's financial assurance funds will be used to pay for soil disposal for that site; OPLC will fund disposal of its contaminated soils.
- The balance of the HWP's financial assurance will be used for long-term monitoring and maintenance at that site
- Ada Lab personnel provided training to Region 6 and ODEQ Project Managers, and took a lead role in gathering samples to conduct calibration testing for immunoassay field test kits that will be used during the cleanups at OPLC and HWP. The Houston Lab provided final calibration standards. Ada Lab also assisted Region 6 in developing a gridded sampling plan following the TRIAD approach for soil and groundwater sampling. This approach will reduce project costs due to real time field sampling and use of EPA staff/labs, while increasing technical competency and expediting corrective action.
- Region 6 and Ada Lab characterized and performed confirmatory sampling of soils using immunoassay field test methods, along with laboratory confirmation sampling.
- Region 6 installed four additional groundwater monitoring wells at OPLC.
- Region 6 and ODEQ will jointly issue Ready for Reuse Determinations to the facilities at the completion of their respective cleanups in order to promote productive, protective and sustainable reuse of the properties.

## ADDENDUM 2

### ***Micro Chemical Company, Winnsboro, Louisiana***

This GPRA facility has been at a stalemate regarding site investigation and remediation efforts for approximately 10 years due to limited funding for site work and the inflexibility of the regulatory project manager on how to appropriately deal with this under-funded facility. Regulatory inflexibility, lead to limited cooperation between the parties and little progress was made after the initial Interim Measures were completed. During the past year, the regulatory project manager changed and the facility is now participating in the Region 6 Corrective Action Strategy (CAS) process which focuses on risk-based / performance-based corrective action objectives for the site. The facility ceased operations in 2008 due to a downturn in the economy and loss of contracts. Investigation and cleanup activities at the facility were completed in 2009. In September 2010, LDEQ and EPA issued a Ready for Reuse determination for a portion of the site, which was sold to the adjacent grain elevator operations in 2011. In 2012, EPA made a final remedy determination for the site and completed documentation for the CA550 construction complete. In 2013, EPA will close out its Order and post closure care will be conducted under a new LDEQ post closure order or permit.

The Micro Chemical Facility is located in Winnsboro, Louisiana 45 minutes south of Monroe on Hwy 15. It is located on 4.75 acres and has been formulating, blending and packaging agri-chemicals (pesticides and herbicides) for local use since 1954. The facility closed in 2008 due to a shrinking competitive market. The owner of the facility has since retired (approximately 80 years of age) but is willing to use remaining limited resources to complete site investigation and cleanup activities. After the cleanup of the property is complete, EPA and the State will provide a Region 6 Ready for Reuse comfort letter to aid in the sale of the property to the adjacent feed mill operation. The proceeds from the sale will be used as financial assurance for long term monitoring and post closure case.

In 1994 Micro Chemical Company entered into an Administrative Order on Consent with EPA to identify, investigate and prevent the further release and/or migration of hazardous constituents to the environment and to perform corrective actions necessary to protect human health and the environment.

In 1996 interim measures were performed which consisted of:

- 14,000 cu/yards of contaminated soils being consolidated, stabilized and capped onsite
- 13 nested pairs of groundwater wells were installed and semi-annual groundwater monitoring was initiated
- Sediments in a near-by abandoned oxbow were sampled and tested

In 1997 a draft RFI work plan was submitted but the final was never approved

In 1999 a draft RFI report was submitted but was never approved



No additional site investigation or cleanup activities took place until 2008

In 2008 the Facility, under new regulatory project management initiated corrective action streamlining activities using the Region 6 Corrective Action Strategy

Since that time the following has been accomplished:

- conducted 4 separate rounds of groundwater delineation step-out sampling to define the extent of the plume
- conducted soil sampling in the MSMA process and tank storage area
- conducted soil sampling along the abandoned Toxaphene delivery line and tank storage area
- conducted additional sediment sampling in the Turkey Creek oxbow
- Excavated, stabilized and consolidated an additional 1,500 cu/yards of contaminated soils (all surface soils were excavated to a minimum of 2 feet and replaced with clean top soil)
- Installed 4 new wells to groundwater monitoring well network
- Financial assurance will be provided by the facility via the sale of the property for long term monitoring and maintenance.
- CA550 documentation was completed in 2012, where Interim Measures serve as the final remedy at the facility.

## ADDENDUM 3

### *Rogers Delinted Cottonseed Co. Site, Robstown, TX*

This former cottonseed delinting facility in South Texas was recently purchased by the Robstown Industrial Development Corporation (RIDC) from Nueces County. The County had originally obtained the property on back taxes from the deceased property owner, Koshiro Yazaki (Yazaki USA Corporation). The RIDC would like to complete whatever cleanup is required at the facility and promote the property for use that would complement the new Nueces County Fairground and Convention Center that is located across the highway from the RDCC facility. A new retail outlet mall is also proposed for development this year next to the fairgrounds. During the summer of 2011, EPA Region 6 Superfund performed some removal actions at the facility which included cleaning out a collapsed aboveground storage tank, cleaning up/removing the pesticide application room, removing containers of pesticides left at the facility, sweeping and pressure washing the facility buildings to remove pesticide residues, and performing lead-based paint and asbestos inspections in the facility buildings. EPA Region 6 RCRA has used REPA contract funds to install groundwater monitoring wells at the facility, perform groundwater monitoring, and perform soil sampling. EPA Region 6 RCRA will work with the TCEQ to determine what further corrective actions are required at the facility based on its potential future reuse. The facility has achieved the CA725 human exposure under control goal. The EPA will determine the status of meeting CA750, CA400, and CA550 milestones after discussions and resolutions with the TCEQ.

The former Rogers Delinted Cottonseed Co. facility is located just northeast of Robstown, TX, in Nueces County, on the east side of U.S. Hwy 77 (Business). It produced cottonseed for sale by using a wet acid cottonseed delinting process, in which highly concentrated sulfuric acid was used on cottonseeds to remove cotton fibers from the seed. The spent sulfuric acid and rinsewaters were discharged from a sump into a series of evaporation ponds. The seed was then dried and treated with fungicides and insecticides. The plant operated from about 1962 to 1983 and has been abandoned since 1984.

The facility is on EPA's GPRA baseline list for corrective action, and as such must meet EI determinations and corrective action completion.

August 2003 groundwater sampling by TCEQ found arsenic, benzene and organochlorine pesticides above MCLs. EPA conducted a site reconnaissance trip on August 4, 2004, and found that part of the site was actively being used for playing paintball games, as noted by paintball equipment left on site, paintball debris, and paintball splatters on wooden pallets in the warehouse building.

In March 2005, EPA returned to the site to conduct sampling and to post signs to warn trespassers that the site was under investigation. Sampling results indicated that the fungicide and pesticides wastes left on site in the process building had elevated levels of lead, chromium and thiram. This waste was bagged. Floor sweep samples from the warehouse building indicated elevated levels of arsenic, lead and chromium. Surface soil samples indicated elevated levels of lead.

EPA returned to the site in July 2005 and conducted the following interim measures:

- the bagged waste in the process building was drummed and removed from the site,
- the warehouse building was swept and wastes were drummed and removed,

- surface soils outside the warehouse that had elevated levels of lead were covered with a clay-gravel mixture to prevent exposure to surface soils,
- All openings to the process building were fenced off and marked with KEEP OUT signs.

The property owner passed away in 1997 with a significant accumulated property tax levy. The City of Robstown had an interest in securing the property through tax resale. Therefore, the EPA collaborated with the City of Robstown to move the site forward. The fencing and most of the warning signs that EPA installed in 2005 had been removed by trespassers. The City of Robstown initiated a trash cleanup day at the site to remove the tires and wood pallets that trespassers had been using to build paintball courses. The City of Robstown also cleared brush so that EPA could access the site for an investigation. In June 2010, EPA contractors installed groundwater monitoring wells at the site and groundwater was sampled. Soil borings were installed within the unclosed ponds and subsurface soil samples were collected. Surface soil samples were also collected throughout the site.

EPA Region 6 RCRA Multimedia Planning and Permitting Division (PD) requested assistance from Region 6 Superfund Division to perform some waste removal work at the site. During the summer of 2011, EPA Superfund performed removal activities (interim measures) at the facility which consisted of cleaning out a collapsed sulfuric acid tank, testing and disposal of abandoned drums, cleaning the process building, performing an asbestos and lead based paint survey, and removing the pesticide application equipment. Also during the summer of 2011, EPA contractors performed another round of groundwater monitoring at the site as well as a water well survey and well yield test.

In March 2012, the Robstown Improvement Development Corporation (RIDC) purchased the property as a tax resale.

In July 2013, EPA contractors performed groundwater sampling, installed 2 soil borings into Pond 1, and collected over 100 surface soil samples for pH analysis. The surface soil sampling revealed that the non-vegetated areas of the site are of low pH and may require pH adjustment or soil cover before the property is put into reuse.

EPA intends to work with the RIDC and the TCEQ to achieve CA750, CA400 and CA550; and encourage the beneficial reuse of the property by recycling onsite materials including metal equipment and building components.

## ADDENDUM 4

### *The Region 6 RCRA Hazardous Waste Program Environmental Justice Strategy*

#### **Introduction**

The Agency has made “*Expanding the Conversation on Environmentalism and Working for Environmental Justice*” a priority. To implement this priority, EPA launched Plan EJ 2014 as the Agency’s strategy for integrating environmental justice (EJ) in its programs, policies and activities. This four-year plan will help EPA move forward to develop a stronger relationship with communities and increase the Agency’s effort to improve the environmental conditions and public health in overburdened communities. The plan seeks to protect the environment and health in overburdened communities; empower communities to take action to improve their health and environment and establish partnerships with local, state, tribal and federal governments and organizations to achieve healthy and sustainable communities.

The Region 6 EJ office has identified five areas of concern for EJ consideration. A map showing the locations is shown in Appendix A. These areas will be used as initial assessment areas by the RCRA program to focus our efforts.

The Region 6 RCRA Hazardous Waste Program evaluated three EJ assessment tools. These were available for use to prioritize sensitive areas for consideration. See Appendix B for a comparison table of the three tools. EPA Region 6 uses the Potential EJ Index (PEJI) ranking tool which has high resolution because it is based on the Census block level, but there are a low number of social demographic indicators used in the ranking. (Social demographic indicators include: percent minority, per capita income, population density and others.) The Social Vulnerability Index (SVI) ranking tool utilized by Region 9 makes assessments at the Census block group level, which is a lower resolution than the PEJI, but considers a higher number of social demographic indicators, including: percent minority, per capita income, percent population over 18, percent population over 64, percent population without high school diploma, and percent households with limited English proficiency. OECA’s Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT) assesses at a Census tract level, the highest resolution of the three indices. EJSEAT evaluates the same social demographic indicators as the SVI, but also includes various environmental, human health, and compliance indicators. In order to eliminate the diverse assessment of tools, the EPA Headquarters is working to create a national EJ ranking tool, anticipated to be released in 2014. For the purposes of this strategy, the RCRA Hazardous Waste oversight program will evaluate factors from the various rankings until the national tool is available, and will designate identified areas as areas of concern.

The Region 6 RCRA Hazardous Waste Program strategy describes the goals and methods for incorporating EJ into the day to day operations of our program. This strategy defines three focus areas for the RCRA Hazardous Waste State Program oversight process:

1. Program oversight review of state-issued permits and GPRA corrective action reviews
2. Program oversight review of state public participation activities associated with permit renewals and RCRA corrective action, and
3. In other program areas, we will consider areas of concern in our decision-making process for EPA assistance to the states. This would involve RCRA underfunded/near bankrupt sites and the various state voluntary cleanup programs.

### ***Focus Area 1: Oversight Review of Permits and GPRA Corrective Action***

There are several areas in our oversight of state- implemented RCRA hazardous waste programs where we can more effectively protect human health and the environment for disproportionately burdened populations by incorporating EJ considerations into our reviews.

- Complete an initial review of the five areas of concern identified by the Region 6 EJ office. Using GIS layer treatment storage and disposal (TSD) and permit data along with GPRA 2020 data for corrective action sites within a 5 mile radius of the areas of concern.
- Expand the list of facilities by incorporating information on voluntary cleanup program (VCP) sites. For Texas this will include facilities located in municipal settings designated (MSD) areas.
- Prioritize the facilities within an area of concern by narrowing the focus to facilities with an identified off-site release. In addition to the above we will prioritize our reviews and oversight based upon the ORCR Corrective Action EJ Analysis. This analysis places GPRA 2020 corrective action sites into one of three categories.
- Expand the number of areas of concern by using other screening tools to look at areas that may be disproportionately burdened by RCRA facilities. There are numerous pockets of that have large numbers of 2020 Corrective Action sites. See Appendix C.
- To further prioritize the identified areas of concern, the concentration of RCRA facilities within an area will be used for screening.
- Prioritize our annual permit and corrective action reviews for each state by ensuring that facilities located in the areas of concern are given priority.
- Prioritize GPRA corrective action status updates (via monthly conference calls) based on areas of concern or sensitive areas.
- Based on facility-specific information on corrective action progress and agreement with state partners, referrals to the Hazardous Waste Enforcement Branch of the Region 6 Compliance Assurance and Enforcement Division may be appropriate.

## ***Focus Area 2: Oversight Review of State Public Participation***

In February 1996, EPA finalized the RCRA Expanded Public Participation Rule (EPA530-F-95-030) to empower communities to become involved earlier and more often in the process of permitting hazardous waste management facilities. The Rule supports 1) involving the public earlier in the permitting process, 2) providing more opportunities for public involvement, 3) expands access to public information, and 4) provides guidance on how facilities can improve public participation.

- During our RCRA Permit Program and Corrective Action Program reviews for a state, EJ considerations will be incorporated into the review. This includes documenting how each state supports the RCRA Expanded Public Participation Rule into their permitting and corrective action processes. For example see Appendix D, *Summary of Region 6 States RCRA Public Participation*.

## ***Focus Area 3: EPA Assistance to the States***

Facilities that are identified within areas of concern through the use of the various EJ prioritization tools will be prioritized for EPA assistance which may include:

- Use of contract dollars for additional sampling at facilities located in areas of concern.
- Coordination with each of our states to ensure that appropriate actions are taken for all sites and that disproportionately burdened populations are included to the extent practicable in the decision making process.
- Referrals to enforcement or requests for additional support will be prioritized based impact to the areas of concern.
- Special consideration for sites in the VCP with potential Indoor Air Exposures.

## ***Path Forward***

The RCRA Hazardous Waste Program will concentrate on the five areas of concern to perform an initial screen of RCRA sites and 2020 GPRA corrective action sites. The Grants Mining District in New Mexico does not have any RCRA sites or 2020 GPRA corrective action sites within the 5 mile radius we are using for the screen. The initial mapping effort for Manchester and Port Arthur, Texas along with Mossville, Louisiana will be completed by the end of September 2011. The Corpus Christi, Texas area is dependent upon receiving parcel boundary data, but should be completed by December 2011.

In addition to mapping the 2020 GPRA corrective action sites located within the areas of concern, we will prioritize them to prepare for discussions with the states. This should be completed by December 2011. See Appendix E for a list.

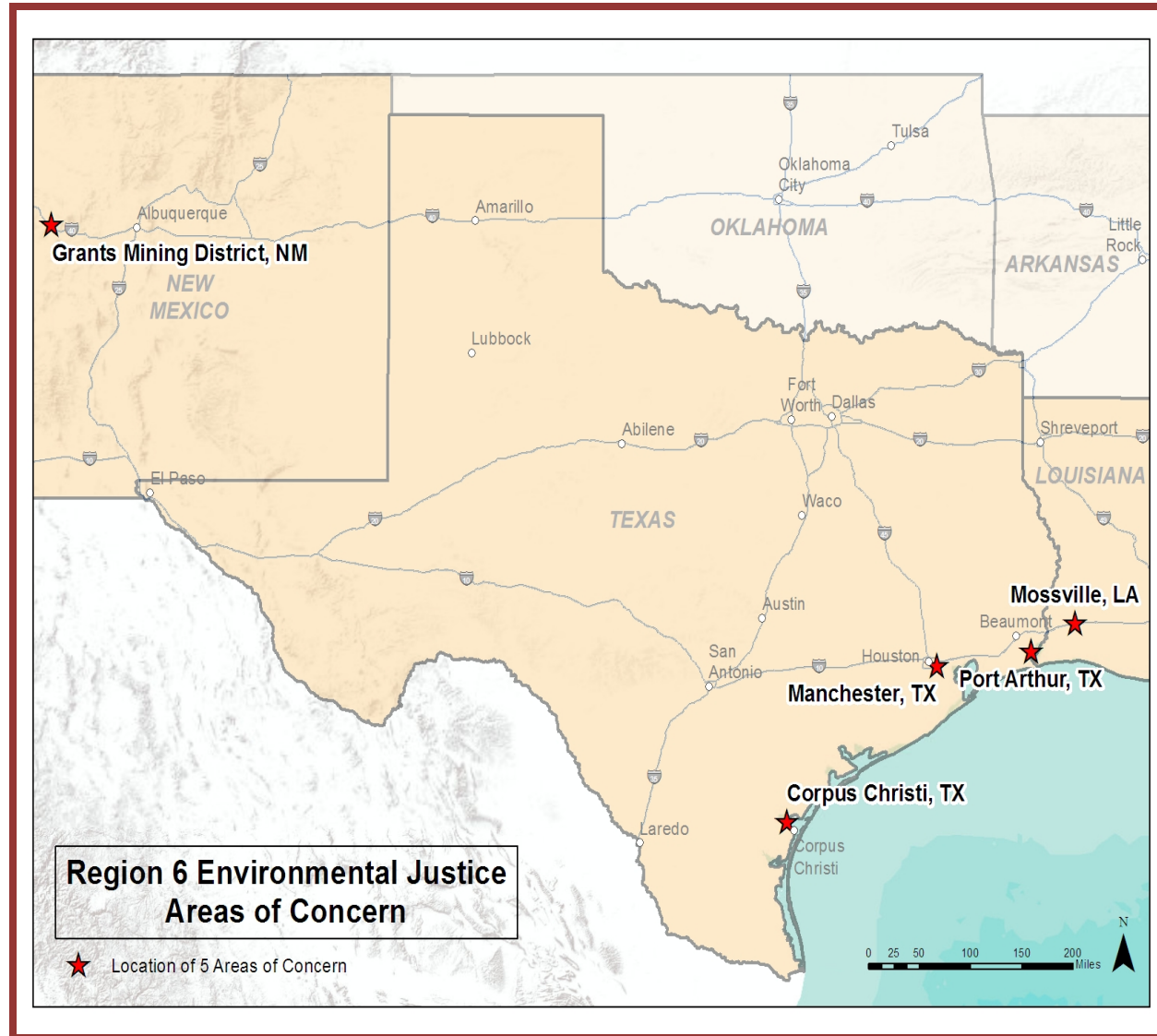
We will use the screening information to prioritize our permit and corrective action reviews for FY 2012.

We currently host monthly calls with Louisiana to discuss issues with corrective action sites. If the need arises we will implement a similar strategy in other states.

The Region 6 RCRA program will incorporate an Environmental Justice element into the RCRA state grant program for each of the five states. This would occur during the negotiations for the 2013 fiscal grant year for each state and would require the consideration of EJ facility rankings as a factor in the setting of priorities for review of state lead corrective action activities.

Once the initial review of potential oversight areas is complete we will continue to screen additional facilities in these areas of concern, such as voluntary cleanups to ensure that our oversight program is adequate. This task would start in FY 2013. Additional areas of concern could be identified based upon screening criteria the Region decides to implement in the interim until an Agency wide screening tool is developed hopefully in FY 2014.

## APPENDIX A



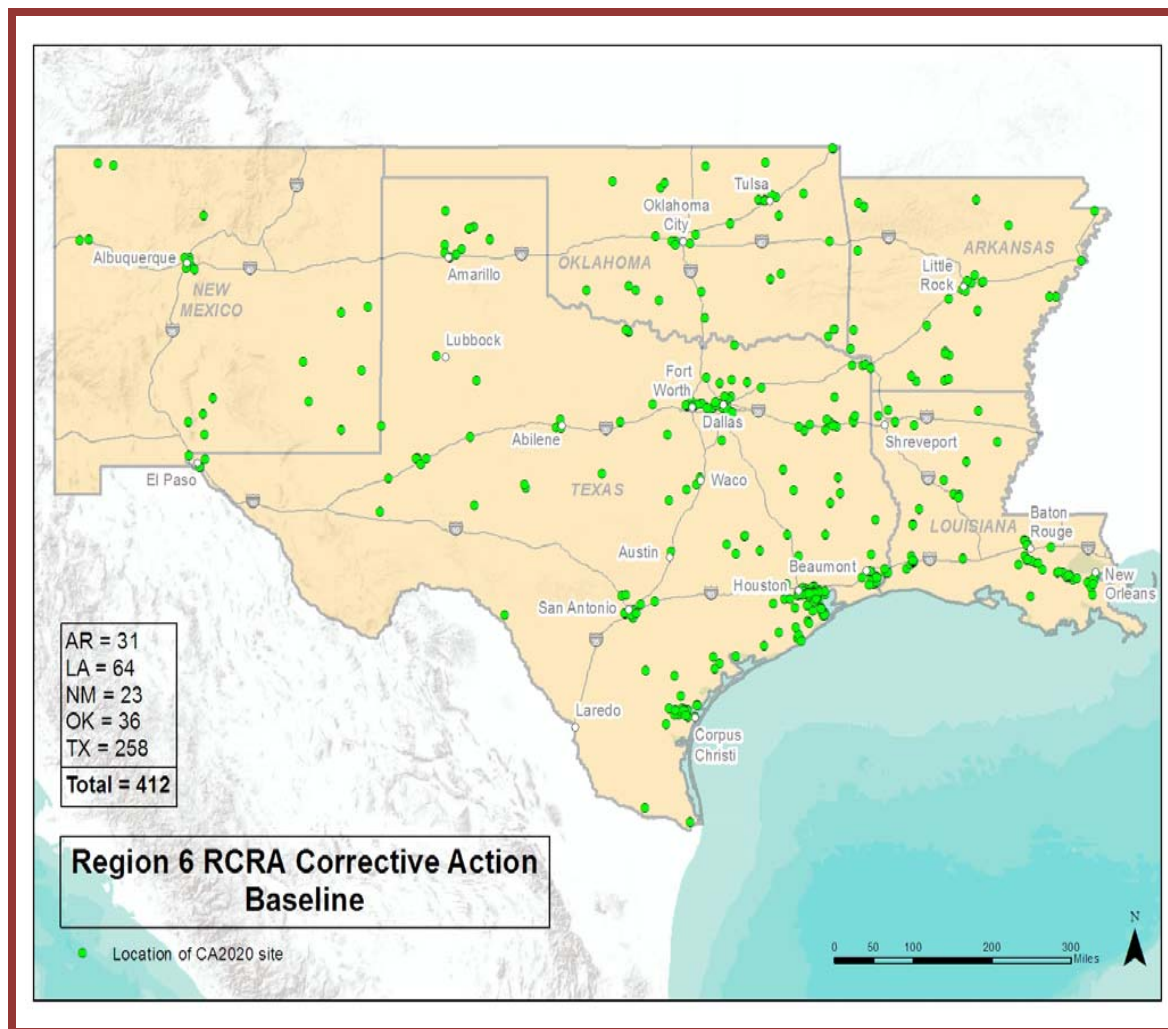


## APPENDIX B

<b>OECA – Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT)</b>	<b>Region 9 – Social Vulnerability Index (SVI)</b>	<b>Region 6 – Potential Environmental Justice Index (PEJI)</b>
<ul style="list-style-type: none"> <li>❖ Assessed at <u>Census Tract</u> Level (multiple tracts make up a county)</li> <li>❖ Designed for enforcement/compliance programs to rank census tracts and regulated facilities</li> <li>❖ Project started in 2005 – draft tool still in development</li> <li>❖ Score: 1 (Highest Potential EJ Concern) – 10 (Lowest Potential EJ Concern)</li> </ul> <p>Tool pulls data for <b>4 indicator categories</b> from <b>18 select</b> federally-recognized or managed databases:</p>	<ul style="list-style-type: none"> <li>❖ Assessed at <u>Census Block Group</u> Level (multiple block groups make up a tract)</li> <li>❖ Designed for ranking both census block groups and Corrective Action sites</li> <li>❖ Developed by Region 9's Environmental Justice Program</li> <li>❖ Score: 0 (Least Socially Vulnerable) – 18 (Most Socially Vulnerable)</li> </ul> <p>Tool pulls data for <b>1 indicator category</b> from <b>6 select</b> federally-recognized or managed databases:</p>	<ul style="list-style-type: none"> <li>❖ Assessed at <u>Census Block</u> Level (multiple blocks make up a block group)</li> <li>❖ Designed for all Region 6 programs to identify potential EJ areas of concern</li> <li>❖ Methodology derived in the mid-1990s (from Human Health Risk Index)</li> <li>❖ Score: 0 (Low EJ Sensitivity) – 100 (High EJ Sensitivity)</li> </ul> <p>Tool pulls data for <b>1 indicator category</b> from <b>3 select</b> federally-recognized or managed databases:</p>
<p>➤ <b><u>Social Demographic Indicators</u></b> (2000 Census Data)</p> <ul style="list-style-type: none"> <li>○ Percent minority</li> <li>○ Percent in poverty</li> <li>○ Percent population under 5</li> <li>○ Percent population over 64</li> <li>○ Percent population without high school diploma</li> <li>○ Percent households with limited English proficiency</li> </ul>	<p>➤ <b><u>Social Demographic Indicators</u></b> (2000 Census Data)</p> <ul style="list-style-type: none"> <li>○ Percent minority</li> <li>○ Per capita income</li> <li>○ Percent population under 18</li> <li>○ Percent population over 64</li> <li>○ Percent population without high school diploma</li> <li>○ Percent households with limited English proficiency</li> </ul>	<p>➤ <b><u>Social Demographic Indicators</u></b> (2000 Census Data)</p> <ul style="list-style-type: none"> <li>○ Percent minority</li> <li>○ Percent in poverty/economically stressed (percent of households with income under \$20,000 – adjusted to present day)</li> <li>○ Population density (pop. per sq mi)</li> </ul>
<p>➤ <b><u>Environmental Indicators</u></b></p> <ul style="list-style-type: none"> <li>○ NATA cancer and non-cancer risk from air emissions</li> <li>○ Toxic chemical emissions and transfers from industrial facilities-TRI</li> <li>○ Population weighted ozone and PM 2.5 monitoring data</li> </ul>		
<p>➤ <b><u>Human Health Indicators</u></b></p> <ul style="list-style-type: none"> <li>○ Percent infant mortality</li> <li>○ Percent low birth weight</li> </ul>		
<p>➤ <b><u>Compliance Indicators</u></b></p> <ul style="list-style-type: none"> <li>○ Inspections, violations, and formal actions at major facilities</li> <li>○ Facility density (no. of permitted facilities per q mi)</li> </ul>		

<b>OECA – Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT)</b>	<b>Region 9 – Social Vulnerability Index (SVI)</b>	<b>Region 6 – Potential Environmental Justice Index (PEJI)</b>
<p><b>How community vulnerability is scored:</b></p> <ul style="list-style-type: none"> <li>Each indicator is scaled from 0-100 within each state by Census tract</li> <li>The scaled indicator values are averaged within each category (e.g., demographic, health)</li> <li>The four category values are averaged into an overall value</li> <li>This value is again rescaled from 0-100 within each state, and the final summary value is represented as a decile (1-10) for the Census tract</li> </ul>	<p><b>How community vulnerability is scored:</b></p> <p>Each dataset for each block group is assigned an index score of 0-3, based on whether the value in that dataset falls in the top quartile (score=3), second quartile (score=2), third quartile (score=1), or bottom quartile (score=0)</p> <ul style="list-style-type: none"> <li>Top quartile represents most vulnerable (i.e., block group with the highest percent minority)</li> <li>The datasets are then all added together to assign a comprehensive score to each block group (0-18)</li> </ul>	<p><b>How community vulnerability is scored:</b></p> <ul style="list-style-type: none"> <li>Population density (population per 1 square mile) is scaled 0-4 (0 = 0, 4 = &gt;5,000)</li> <li>Economically stressed and percent minority are scaled 1-5 (based on comparison to State Avg.)</li> <li>Population density and percent minority are calculated at the block level; economically stressed calculated at the block group level, and then applied to the block level</li> <li>The 3 factors are multiplied together to assign a comprehensive EJ score to each block (0-100)</li> </ul>
<p><b>How facility ranking is scored:</b></p> <ul style="list-style-type: none"> <li>Facilities are ranked based on their proximity (currently, considered within 2/3 mile) to Census tracts with high EJSEAT scores</li> </ul>	<p><b>How site ranking is scored:</b></p> <ul style="list-style-type: none"> <li>A one-mile radius is drawn around each site</li> <li>If a site's radius falls within one block group, then the SVI score for that block group is assigned</li> <li>If a site's radius covers multiple block groups, then the percentage of each block group that falls within the radius is calculated, and then multiplied by the total population within each block group</li> <li>Each value is then multiplied by that block group's SVI score, and then summed</li> <li>This value is then divided by the total population that falls within the one-mile radius to come up with a weighted SVI score for the site</li> </ul>	<p><b>How site ranking is scored:</b></p> <ul style="list-style-type: none"> <li>N/A – there is no site ranking component to this methodology</li> </ul>
<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>Considers multiple indicators and datasets</li> <li>Calculates a score not just for a demographic area, but also for a regulated facility</li> </ul>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>Flexible: easy to customize output</li> <li>Block group scale can pick up more EJ communities than Census tract</li> <li>Calculates a score not just for a demographic area (i.e., block group), but also for a site location</li> </ul>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>Flexible: easy to customize output</li> <li>Block scale can pick up more EJ communities than Census tract or block group</li> </ul>
<p><b>Disadvantages:</b></p> <ul style="list-style-type: none"> <li>Static: limited ability to customize output</li> <li>Census tract scale is not detailed enough to pick up all EJ communities</li> <li>Environmental indicators are focused on outdoor air risk and toxics; do not take into account indoor air quality, drinking water, groundwater, pesticide, and other concerns</li> </ul> <p>Not all indicators have data available at the Census tract level (e.g., health indicators are at the County level)</p>	<p><b>Disadvantages:</b></p> <p>Doesn't consider multiple indicators (e.g., environmental, human health)</p>	<p><b>Disadvantages:</b></p> <ul style="list-style-type: none"> <li>Doesn't consider multiple indicators (e.g., environmental, human health)</li> </ul> <p>Current methodology doesn't take into account calculating a score for a regulated facility or Corrective Action site</p>

## APPENDIX C



## APPENDIX D

### *Summary of Region 6 States RCRA Public Participation*

All of the states in Region 6 are authorized to implement the RCRA permitting corrective action programs. As such EPA does not issue RCRA permits in Region 6. We rely on the state programs to follow at minimum EPA guidelines for public participation. As our role of oversight has expanded we continue to look all parts of the RCRA permitting and corrective action programs, including public participation.

In general the states follow the RCRA public participation requirements with some enhancements that are unique for each state. Several of the states provide the public access to draft permits on-line. States also have documents related to corrective action activities on-line. This allows the public easy access to documents for review and in some cases to leave comments. Included is a brief description of each states program and how environmental justice factors into decisions.

#### Arkansas

The Arkansas Department of Environmental Quality (ADEQ) follows the basic required steps for public notices/participation during the permitting process for all Class 1/2/3 Permit Modifications as well as Permits (both initial and renewals). This involves both administrative completeness as well as technical completeness. For Commercial facilities, they always hold a public meeting/hearing for all Class 3 modifications/renewals. For Non-Commercial facilities a public notice of the decisions is made and they await final decisions after the close of the public comment period, etc. Public meetings/hearings are not required to be held for Non-Commercial facilities, but there have been an occasion in which ADEQ has felt it was prudent based upon public concerns, etc. In all public notices, ADEQ offers the public the opportunity to request a public hearing (if not originally required or scheduled).

All comments (both verbal and written) are addressed in a Responsiveness Summary and are sent to all parties that are on the mailing list for the respective facility or to those that provided comments. This Responsiveness Summary becomes part of the final approval/notice of issuance. All final decisions are discussed in Responsiveness Summary and Fact Sheet on each respective decision.

The current State Administrative Regulation (APC&EC Reg. No. 8) allows for any party to request a hearing/meeting if one is not initially offered. Based upon discussions with program managers they could not recall a time in which someone requested a meeting/hearing that the Director did not grant such request.

The point where the local community has input into the process is from the point the facility submits a request to ADEQ for a Permit Modification or a Renewal (or initial issuance) since (1) the facilities are required regulatory to do a public notice when applications

are submitted to ADEQ for consideration and (2) ADEQ issues notices of intent to either deny or grant. This later notice has a 30 to 45 day public comment period built into the process. Administrative Repositories are established for all Permitting decisions and the locations of these are placed in the initial public notice Fact Sheets.

There is also a public participation process in RCRA corrective action. A RCRA final remedy for a site is described in a Remedial Action Decision document (RADD), which has a 45-day (or 30-day) public comment period. Once public comments are collected, the authorized agency writes a Response to Comments/Final Decision document.

### *Louisiana*

The Louisiana Department of Environmental Quality (LDEQ) follows the required steps for public notices/participation during the permitting process. LDEQ also has a Public Participation Group that is part of the Permit Support Services Division. They are responsible for issuing public notices and conducting public hearing and meetings associated with permitting activities. One additional enhancement is noted in the requirements to hold an evidentiary hearing in LAC 33:V.709, Evidentiary Hearings on Operating Permit Applications for Commercial Hazardous Waste Treatment, Storage, Disposal, or Recycling Facilities. This applies to a company applying for a RCRA permit as a commercial TSD. The department must hold an evidentiary hearing after the technical review of the permit. There is a public notice and hearing at which extra information regarding the application can be submitted by the public to the LDEQ. LDEQ can't issue the draft permit until it has received and reviewed the record of the evidentiary hearing.

The state maintains an on-line method for the public to access permits (both draft and final), correspondence, public notices and applications.

There is also a public participation process in RCRA corrective action. A RCRA final remedy for a site is described in a Basis of Decision document which has a 45-day (or 30-day) public comment period. Once public comments are collected, the authorized agency writes a Response to Comments/Final Decision document.

### *Oklahoma*

The Oklahoma Department of Environmental Quality (ODEQ) follows the required steps for public notices/participation during the permitting process. ODEQ has a Customer Assistance Program which provides a point of access for agency information. Among other things they provide risk communication and citizen assistance. This allows citizens and public interest groups to obtain copies of permits and other documents.

Another enhancement over and above the basic public participation requirement is how they post all draft permits on the ODEQ web site. The permits can be viewed and comments can be provided on-line by interested parties. ODEQ plans to have all active permits available on line for viewing.

There is also a public participation process in RCRA corrective action. A RCRA final remedy for a site is described in a Statement of Basis which has a 45-day (or 30-day) public comment period. Once public comments are collected, the authorized agency writes a Response to Comments/Final Decision document.

### *New Mexico*

The New Mexico Environment Department (NMED) follows the required steps for public notices/public participation during the permitting process. The New Mexico Hazardous Waste Management Regulations, 20.4.1 NMAC provides for a robust public participation process. Through involvement of the public in the permitting process the hazardous waste permits in New Mexico are improved.

Through negotiations with the applicants and the public, comments received during the comment period the final permits are greatly enhanced to provide the public with more awareness, such as e-mail notifications of various activities that occur at the facility through the term of the permit. NMED will also extend the public comment period on some of the more complex permits.

The New Mexico Hazardous Waste Management Regulations, at 20.4.1.901.A(4) NMAC, states: "If the Secretary issues a Draft Permit, and a timely written notice of opposition to the Draft Permit and a request for a public hearing is received, the Department, acting in conjunction with the applicant, will respond to the request in an attempt to resolve the issues giving rise to the opposition. If such issues are resolved to the satisfaction of the opponent, the opponent may withdraw the request for a public hearing." NMED has interpreted this rule to allow face-to-face discussions with commenter's and the applicant. NMED has successfully conducted such meetings, which have led to withdrawal of hearing requests. While avoiding a hearing can save months of time and considerable resources preparing for an administrative hearing, conducting multiple meetings can also add to the delay in issuing permits.

Commenter's that did not request a hearing are not invited to the meetings with NMED and the applicant. The intent is to resolve as many issues as possible during these meetings. The meetings provide a beneficial interaction and understanding of each party position and in many instances, through detailed discussion of the specific issue, ends in a mutual resolution or compromise. Concerns being discussed may include environmental justice issues. The resolution or compromise must be consistent with and not conflict with the regulations and statute.

At the end of these meetings there are several procedures that may occur. If the withdrawal of hearing requests is made then NMED could issue a final permit. If hearing requests are not withdrawn NMED could then reissue the draft permit for public comment if

significant changes have been made. NMED could schedule a public hearing which would be limited to those issues that were not resolved during the meetings. Other iterations could be considered in the process.

NMED has employed all of these strategies at various times, depending on the circumstances peculiar to each permitting action.

In addition LANL and WIPP have e-mail notification when certain actions occur. These are required in their respective hazardous waste permits. Also, WIPP held pre-submittal meetings when they applied for their permit renewal and they also hold them for Class 2 and Class 3 permit modification proposals. LANL has held pre-submittal meetings on permit modifications, and recently, a new unit they are proposing to add to the current permit. NMED has and continues to encourage the facilities to hold pre-submittal meetings on major modifications and renewal applications. New Mexico public notices permit applications as required by 40 CFR 124.32.

Many of our federal facilities also have established physical information repositories. LANL has recently employed an electronic repository in addition to a physical repository as was negotiated during the permit process and required under the current permit. WIPP also has an electronic repository and a physical repository. In addition, many of our facilities are required to put in place a community relations plan (CRP) that engages the public, and in some instance tribes, on how to inform the communities and interested public of permit and corrective action related activities. The CRPs are required to be updated annually with input from communities, tribes and interested persons.

NMED has established a Border Liaison and a Tribal Liaison to work on EJ concerns and issues. The liaisons were established in response to a public participation process to ascertain the extent and nature of unique and differing EJ issues and concerns in NMED's five state-wide districts. The goal of the liaisons is to be the main point of contact for border or tribal EJ issues focusing on reducing air pollution, providing safe drinking water, reducing the risk of exposure to hazardous waste, training and outreach.

Other enhancements that allow easy access to documents include the NMED website which has all of the current RCRA permits on-line for viewing or download. The site also includes public notices.

There is also a public participation process in RCRA corrective action. A RCRA final remedy for a site is described in a Statement of Basis which has a 45-day (or 30-day) public comment period. Once public comments are collected, the authorized agency writes a Response to Comments/Final Decision document

## *Texas*

The Texas Commission on Environmental Quality (TCEQ) follows the required steps for public notices/public participation during the permitting process. Enhancements include publishing notices in an alternate language. After a preliminary decision is reached (Final Draft Permit is sent the Office of Chief Clerk (OCC)): a) OCC sends notice of preliminary decision to all persons listed in 30 TAC 39.413; b) Applicant publishes notice in English in local newspaper (in some areas also in an alternate language...i.e. Spanish); c) for new, renewal, and major amendments (not Class 3 modifications) the company will also do a radio broadcast.



Comments and hearing requests will be accepted and considered from the first notice through the final comment period. Also, for major permitting actions and new facilities, the Commission may hold a public meeting as per 30 TAC 39 if public interest is shown.

TCEQ provides easy to find public participation information on-line. In addition the state maintains an Environmental Equity office to address EJ issues. Some of the goals of the program are to help citizens and neighborhood groups participate in regulatory processes; serve as the agency contact to address allegations of environmental injustice; serve as a link for communications between the community, industries, and the government; and to thoroughly consider all citizens' concerns and handle them fairly.

There is also a public participation process in RCRA corrective action. A RCRA final remedy for a site is described in a Statement of Basis which has a 45-day (or 30-day) public comment period. Once public comments are collected, the authorized agency writes a Response to Comments/Final Decision document.



## APPENDIX E

### *2020 GPRA Corrective Action Sites within 5 Miles of Communities of Concern*

EPA ID NO.	FACILITY	PARCEL OWNER	LEAD AGENCY	RANK CA075	HUMAN HEALTH CA725	GROUNDWATER CONTROLLED CA750	REMEDY SELECTED CA400	REMEDY CONSTRUCTED CA550	PROJECTED REMEDY CONSTRUCTED CA 550	EJ SEAT RANKING
<b>Manchester, Texas</b>										
TXD000802959	Ak Steel Corporation	Armco Inc	EPA TX47	ME	YE 10/09	OK	OK	OK	2017	1
TXD008089021	Koppers Company Inc	Magellan Terminal Holdings	STATE	HI	YE 07/04	YE 07/04	08/06		2011	1
TXD008098725	Chevron Phillips Chemical Company Lp	Chevron Phillips Chemical	STATE	HI	YE 02/09	YE 02/09	02/09	NR 02/09		1
TXD008099079	Rhodia Inc	Rhodia / Texas Ultra Pure (joint parcel ownership)	EPA TX47	ME	YE 03/07	OK	OK	OK	2018	1
TXD008105959	Parkans International Llc	Seafood Internationale LLC	EPA TX47	LO	YE 10/09	OK	OK	OK	2018	2
TXD026481523	Kinder Morgan Liquids Terminals Lp	GATX Terminals Corp	STATE	HI	YE 12/04	YE 12/04	08/08	RC 08/08		
TXD053624193	Valero	Valero Refining Co Texas	STATE	LO	YE 11/10	YE 11/10	10/10	10/10		1
TXD055135388	Set Environmental Inc	Set Environmental Inc	EPA TX47	LO	YE 9/10	OK	OK	OK		1
TXD082684002	Exxon Chemical Americas Baytown	Exxon Corp	EPA 6PD CASE	HI	YE 8/07	IN 8/07			2016	

EPA ID NO.	FACILITY	PARCEL OWNER	LEAD AGENCY	RANK CA075	HUMAN HEALTH CA725	GROUNDWATER CONTROLLED CA750	REMEDY SELECTED CA400	REMEDY CONSTRUCTED CA550	PROJECTED REMEDY CONSTRUCTED CA 550	EJ SEAT RANKING
	Chemical									
TXD082688979	Lyondell Citgo Refining Lp	Houston Refining	STATE	HI	YE 08/02	YE 08/02	07/06	RC 08/07		5
TXD084972777	Bayer Corp	John E Frantz	STATE	HI	YE 10/01	YE 08/02	02/08	NR 02/08		1
TXD982560294	Nuclear Sources And Services Inc	Robert D Gallagher	STATE	HI	YE 10/00	YE 10/00	02/06	NR 02/06		1
TXD990757486	Air Products Lp	Air Products Incorporated	STATE	ME	IN 07/97	IN 07/97	01/09	RC 01/09		1
<b>Corpus Christi, Texas</b>										
TXD008117186	Encycle Texas Inc	Still waiting on data	EPA 6PD CASE	HI	YE 12/04	YE 04/04	11/10		2013	3
TXD008132268	Valero Energy Corp	Still waiting on data	STATE	ME	YE 01/09	YE 01/09			2012	1
TXD051161990	Citgo Petroleum Corporation	Still waiting on data	STATE	LO	YE 01/09	YE 01/09			2012	1
TXD066447376	Flint Hills Resources Lp	Still waiting on data	STATE	HI	YE 02/00	YE 12/03	08/07	RC 08/07		1
TXD981153711	Citgo Refining And Chemicals Company Lp	Still waiting on data	STATE	ME	YE 09/09	YE 06/09	02/09	NR 02/09		3
TXD981157530	Citgo Refining And Chemicals Inc	Still waiting on data	STATE	LO	IN 03/07	IN 03/07	3/11	3/11		
<b>Port Arthur, Texas</b>										
TXD000820928	Huntsman Petrochemical Corporation	Huntsman Petrochemical Corp	STATE	LO	YE 03/05	YE 03/05	02/06	RC 02/06		3
TXD008076846	Huntsman Petrochemical Corporation	Huntsman Petrochemical Corp	STATE	ME	YE 09/09	YE 09/09	09/09	NR 09/09		2
TXD008090409	The Premcor Refining Group	Golden Triangle	STATE	HI	YE 02/03	YE 02/03			2012	4

EPA ID NO.	FACILITY	PARCEL OWNER	LEAD AGENCY	RANK CA075	HUMAN HEALTH CA725	GROUNDWATER CONTROLLED CA750	REMEDY SELECTED CA400	REMEDY CONSTRUCTED CA550	PROJECTED REMEDY CONSTRUCTED CA 550	EJ SEAT RANKING
	Inc	Properties LLC								
TXD008097529	Motiva Enterprises Llc	Motiva Refinery	STATE	HI	YE 04/04	YE 04/04	02/09		2015	3
TXD980626022	Motiva Enterprises Llc	Motiva Refinery	EPA 6PD CASE	HI	YE 12/04	YE 12/04			2019	2
<b>Mossville, Louisiana</b>										
LAD000618256	Cecos Intl, Inc. Calcasieu Facility	Cecos International Inc	STATE	HI	YE 05/03	YE 05/03	06/08	2/11		9
LAD008080350	Citgo Petroleum Corporation	Citgo Petroleum Corporation	STATE	HI	YE 04/05	IN 08/99			2018	3
LAD008080681	Olin Corporation, Lake Charles	Olin Corporation	STATE	HI	YE 06/03	YE 06/03			2014	3
LAD008086506	PPG Industries Inc	PPG Industries Inc	STATE	HI	YE 06/04	YE 06/04	6/10		2012	3
LAD086478047	Georgia Gulf Lake Charles, Llc	Georgia Gulf Lake Charles LLC	STATE	HI	YE 03/03	YE 03/03	02/10	NR 02/10		3
LAD981514441	Ppg Industries No 5 Incinerator	PPG Industries Inc	STATE	HI	YE 06/00	YE 06/00	12/05	12/05		
LAD990683716	ConocoPhillips Company	Conoco Inc	STATE	HI	YE 10/05	YE 10/05			2020	3
LAR000018333	Lyondell Chemical Company	Lyondell Chemical Company	STATE	LO			6/10		2014	3
LAR000041087	Sasol North America Inc.	Sasol North America Inc	STATE	LO					2014	3
<b>Grants, New Mexico - no RCRA 2020 sites within 40 miles</b>										

## Table of Contents

	<b>Page</b>
<i>Original Corrective Action Strategy to Meet GPRA 2020 Goals</i>	<i>1</i>
<i>Updated Regional Corrective Action Strategy</i>	<i>3</i>
<i>    : Projected Progress to CA550</i>	<i>11</i>
<i>Chart 1 : Projected % Facilities Reaching GPRA Goals</i>	<i>12</i>
<i>Table 1A : Actual % Facilities Reaching GPRA Goals</i>	<i>13</i>
<i>Table 1B : Projected and Actual % Facilities in Total Universe Reaching GPRA Goals</i>	<i>14</i>
<i>Table 2 : Projected versus Actual Progress to CA550</i>	<i>15</i>
<i>Chart 2 : Facilities of Concern</i>	<i>17</i>
<i>Table 3 : Categorization of Difficult Baseline Facilities</i>	<i>25</i>
<i>Addendum 1: Huffman Wood Preserving and Oklahoma Pole and Lumber Facilities</i>	<i>29</i>
<i>Addendum 2: MicroChemical Company</i>	<i>31</i>
<i>Addendum 3: Rogers Delinted Cottonseed Company</i>	<i>33</i>
<i>Addendum 4: Region 6 RCRA Hazardous Waste Program Environmental Justice Strategy</i>	<i>35</i>
<i>Appendix A: Map EJ Areas of Concern</i>	<i>39</i>
<i>Appendix B: Environmental Justice Strategic Enforcement Assessment Tool</i>	<i>40</i>
<i>Appendix C: Map Region 6 Corrective Action Baseline Facilities Location</i>	<i>43</i>
<i>Appendix D: Summary of Region 6 States RCRA Public Participation</i>	<i>45</i>
<i>Appendix E: 2020 GPRA CA Sites within Five Miles of Communities of Concern</i>	<i>51</i>