ENVIRONMENTAL MANAGEMENT REPORT UPDATE

REGION 6

SEPTEMBER 1984

EPA

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EXECUTIVE SUMMARY

Region 6 has within the borders of its five states--Arkansas, Louisiana, New Mexico, Oklahoma, and Texas--over 560,000 square miles. There are marked differences across Region 6 in climate, topography and ecosystems which require a wide range of State and EPA programs to adequately protect the environment and public health. From the large industrial centers to the sparsely populated deserts, great differences are found in demographic make-up, socioeconomic structure, and environmental problems. These differences combined with the rapid population growth occurring and projected in much of Region 6 present a very challenging task for both the States and EPA.

Located in the "Sunbelt," states of Region 6 are experiencing a major population growth. A number of urban centers have doubled or tripled in population over the last 10 years. Austin, Texas, for example, has been recently been rated as the fastest growing city in the United States. In addition, such expansion has not been restricted to major metropolitan areas such as Dallas-Ft Worth, San Antonio, and Houston, but has extended to the desert southwest cities of El Paso and Albequerque, NM.

The population growth in the "Sunbelt" states of Region 6 has caused major growth problems for water utilities--not only water supply but in dealing with vast increases of wastes--municipal sewage and sludge. Solid and hazardous waste problems have been intensified with municipal and industrial expansion.

In addition to population growth, the heavily industrialized areas of the Texas and Louisiana coasts continue to experience growth in the primary areas of chemicals and allied products as well as in a wide variety of other industries. There are significant problems in these areas as a result of Volatile Organic Carbon (VOC) emissions from the petroleum and chemical industries. In two metropolitan areas, the Ozone National Ambient Air Quality Standard (NAAQS) is not being met in large part because of stationary source emissions. A unique problem also exists with rural nonattainment of NAAQS for ozone as a result of VOC emissions in the Gulf Coast area. We and the states are actively pursuing solutions to both the rural and metropolitan ozone problems through State Implementation Plan revisions.

Ground water quality in Region 6 has generally been very good and no public water supply has had to close because of contamination. Localized incidents have, however, affected some private supplies. Because the potential for ground water contamination exists throughout Region 6, steps have been taken to focus on ground water protection by establishing and staffing an Office of Ground Water (OGW) in the Water Management Division. The OGW serves as a clearing house and coordination center for implementing the Ground Water Protection Strategy in Region 6.

Water quality problems also result from nonpoint source (NPS) pollution. In some areas with compliant point source controls, NPS pollution will prevent water quality standards from being met. Solutions to this problem will involve many parties with divergent interests.

Region 6 has a 1200 mile border which it shares with Mexico. This is Mexico's densely populated northern region and environmental quality issues can be difficult to resolve because of the economic disparity between our nations. Region 6 is making progress toward the resolution of those issues which do exist through the implementation of the Environmental Agreement signed by the Presidents of the United States and Mexico.

Toxics control has a high priority in Region 6 and all media (air, water and solid wastes) are involved. Significant control efforts are being implemented in the areas of pretreatment, sludge management, air toxicant emissions, leaking underground storage tanks, landfills, and agricultural chemicals. There are many emerging toxics issues and problems both regional and national in scope which must be assessed and assigned a priority over the next few years if progress is to be made in this area.

The objective in Region 6 is to continue to meet the challenge of protecting the environment and human health without unnecessarily restricting economic growth. To do this the Region must continue to focus on preventative measures to protect the gains that have already been made while at the same time pursuing meaningful and achieveable objectives for environmental improvement.

Part II, Regional Environmental Problems

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Significant Environmental Problems

Environmental Problems by Relative Ranking	Geographic Scope	Major Impacts	Level of Public Concern	Major Sources	Contaminant of Concern
✓ Growth	Growing Metropolitan Areas	Water Quantity and Quality Air Quality, Sensitive Areas, Public Health	Low to Moderate	Growth Related Activity	Numerous
✓ Ozone	Major metropolitan & industrial centers and adjacent rural areas	Public health effects	Medium to high	Automobile & emissions & industrial voc's	volatile organic carbon
Toxics	Regionwide to some extent; particularly along Gulf Coast area of industrialized TX and LA	Contamination of ground water, surface water, and air toxic pollutants; health hazards	High	Petrochemical and Chemical manufacturing industries; hazardous waste incinerators; electroplaters	Volatile organic compounds, other toxic organic compounds, and heavy metals

1984 EMR UPDATE

Significant Environmental Problems

Environmental Problems by Relative Ranking	Geographic Scope	Major Impacts	Level of Public Concern	Major Sources	Contaminant of Concern
Ground Water Quality Problems	National	Degredation of water supported by ground water discharges	High	-Injection wells	brine, municipal & indust. waste
				-improperly plugged or completed oil & gas wells	brine
				-Improperly plugged or completed water wells	brine, mineralization
				-recharge wells	mineralization, bacteria
				-unlined disposal pits	brine, municipal & indust. waste
				-solid waste	organics, heavy metal
				-land application	heavy metals, nitrates
				-septic tanks	nitrates, bacteria
				-fertilizers	nitrates
				-feedlots	nitrates
				-irrigation return flow	nitrates
				-overpumping	salts
				-highway deicing	sodium, chloride
				-spills	hazardous chemicals
				-mining & milling	metals, radiochemicals
				-leaky storage	salts
				-tanks & pipelines	organic compounds

1984 EMR UPDATE

Significant Environmental Problems

Environmental Problems by Relative Ranking	Geographic Scope	Major Impacts	Level of Public Concern	Major Sources	Contaminant of Concern
Pesticide Drift	Regionwide	Drift of pesticides from agricultural application can damage other crops & gardens, cause contamination of food and can sometimes result in health effects.	High	Agricultural & Home application of pesticides.	Herbicides & Insecticides
Nonpoint Sources	Region/ Nationwide	Impact potential on water quality frequently exceeds point source	Moderate to low	Agricultural Urban Runoff Residual Waste Silviculture Mining Construction Runoff	Pesticides & Herbicides Nutrients Metals Oxygen-demanding matter Turbidity Salinity Organics & Hydrocarbon
Sludge Management Municipal	Regional & National	possible contamination of food, ground and surface waters, fear of disease, odor, flies.	Low to moderate	Municipal WWT facilities	Odors, path Nutrients
Industrial	Regional	Possible contamination of food, air, ground and surface water, fear of toxic and hazardous wastes	High	Industrial processes	Hazardous Material toxic substances.

1984 EMR UPDATE

Significant Environmental Problems

Environmental Problems by Relative Ranking	Geographic Scope	Major Impacts	Level of Public Concern	Major Sources	Contaminant of Concern
✓ Leaking underground storage tanks	Nationwide	Contamination of ground water	High	Underground storage tanks	Gasoline, solvents
✓ International Border Problems	US/Mexico border with Texas	Air Quality Attainment	High	Juarez emissions	CO, O_3
		Sewage pollution	High	Nuevo Laredo	Raw sewage
		Illegal transportation/disposal	High	Unknown	Hazardous/ Toxic Wastes
		Public health threat/Environmental damage	Medium	Industrial facilities, transportation	Oil and hazardous substances and wastes
		Environmental dispersion of wastes	High	Radioactive waste handlers	Cobalt-60, and other

GROWTH

1. Problem Assessment

The five States of Region 6 -- Arkansas, Louisiana, New Mexico, Oklahoma and Texas -- lie at the heart of the "Sunbelt". Growth in population and industrial activity in and around metropolitan areas throughout the Region has been tremendous. More than 26 million people now live in Region 6, and population is expected to increase by almost 40 percent by the year 2000. Presently, three of the twelve largest cities and two of the ten largest Metropolitan Statistical Areas (MSA) in the country are in the Region. Almost all of the metropolitan areas in the Region are growing at rates faster than the national growth rate. Metropolitan Houston and Dallas-Fort Worth were the fastest growing large metropolitan areas in the country from 1980-82, at 11.5 percent and 7.3 percent, respectively.

Population and industrial growth in Region 6 is resulting in increased pressures on the environment in virtually every area, including:

- increasing demands for fresh water, which is placing pressures on the ability to maintain quality and quantity within water supply systems;
- increasing sewage discharges putting pressure on treatment facilities, often in areas where assimilative capacity of receiving waters is limited;
- proliferation of inadequate septic systems;
- increasing development in urban areas and around water supply reservoirs near urban centers, generating non-point source discharges;
- overpumping of ground-water resources resulting in salt water intrusion, increased susceptibility to contamination and surface subsidence;
- increasing energy exploration and development;
- increasing air emissions from mobile sources in combination with stationary sources are resulting in difficulty attaining and maintaining NAAQS for ozone and carbon monoxide in metropolitan and adjacent rural areas.
- development of lignite coal fired electric power generation with the associated impacts such as discharges of SO_2 and particulates;
- increasing potential for exposure to toxic air pollutants from industrial sources due to growth in densely populated metropolitan areas;
- increasing hazardous waste generated by a growing number of generators;
- increasing residential development in previously agricultural areas, resulting in increased potential for drift of pesticides into residential areas;
- increasing potential for environmental emergencies brought on by increasing industrial activity, concentration of people near industry and transportation corridors and development in or near hazardous waste dump sites;
- increasing development placing pressures on environmentally sensitive areas such as wetlands, fishery nursery areas, and floodplains.

Most of these areas of environmental concern are related directly to the ability of local governments to plan for population increases. Most people do not perceive the growth being experienced in Region 6 as a significant environmental problem. However, they do perceive some of the potential environmental problems resulting from growth as significant concerns.

2. Regional Agenda

a. Expected Results of Regional Action: Region 6 action to address growth as an environmental problem and work with State and local governments in implementing appropriate planning measures to accommodate growth would result in prevention of significant degradation in many areas. By acting to correct these problems before they become more serious, we reduce the risks of more detrimental effects on the human population and the costs necessary to correct the problem are minimized.

b. Extent of State Participation: Extensive participation of State and local governments would be necessary. Many of the programs affected, e.g., construction grants, review of air emission sources, vehicle inspection and maintenance, are delegable to the States. Other activities relate to areas where states have responsibilities under state law. Local government planning would also be important.

c. Regional Actions and/or Plans: EPA, Region 6, plans to make efforts to maintain environmental quality and make improvements in areas where meaningful environmental gains are possible. A key part of accomplishing this in the fast growing metropolitan areas will be effective planning to address environmental concerns before they become more serious.

d. Timing requirements: Dealing with growth as an environmental problem will be necessary as long as the present trends continue.

e. Barriers: The principal barriers are: 1) the pervasiveness of the problem; 2) the number of entities with which it must be coordinated; and 3) the difficulty inherent in promoting any program which includes elements that may be viewed as land use control.

3. Headquarters Actions Needed

a. Specific Action Requested: EPA, Region 6, requests headquarters support in time and resources in developing and implementing policies geared toward early action in addressing growth related issues.

b. EPA Offices and Programs Involved: EPA, Region 6, forsees all EPA Offices and Programs to be involved -- some continuously.

c. Timing Requirements: Dealing with growth as an environmental problem will be necessary as long as the present trends continue.

OZONE

1. Problem Assessment

Region 6 has an ozone problem that is not adequately addressed by national guidance and must use unique approaches to protect the health of citizens regionwide. This will be a resource intensive effort.

There are currently 32 counties/parishes in Region 6 that are classified as nonattainment for the Ozone National Ambient Air Quality Standard (NAAQS). Six urban areas (Dallas, Tarrant, and El Paso Counties in Texas, East and West Baton Rouge Parishes in Louisiana, and Tulsa County in Oklahoma) are classified as post 1982 nonattainment areas and received calls to submit State Implementatation Plan (SIP) revisions by February 24, 1985. Harris County, which is also an urban nonattainment area, has been given an extension to demonstrate attainment by December 31, 1987. Eighteen counties/parishes are considered rural ozone nonattainment areas and are not now subject to SIP revisions that require attainment of the NAAQS. The remaining areas are urban nonattainment areas which are expected to be redesignated to attainment soon. They are: Pulaski County in Arkansas; Nueces County in Texas; and Bossier, Caddo, Jefferson, St. Bernard, and Orleans Parishes in Louisiana.

The major components of the ozone problem are hydrocarbons (HC) and nitrogen oxides (NO_x) emitted by automobiles and Volatile Organic Carbon (VOC) emissions from stationary sources. Region 6 suspects that the lack of continuous compliance from major stationary sources and increased automobile emissions because of a high rate of tampering and misfueling are major contributors to the continuing ozone problems in Region 6, especially the six post 1982 nonattainment areas.

Listed in Table 1 are the 18 ozone nonattainment areas in Region 6 which are classified as rural nonattainment areas because they lack central city populations of 200,000 or greater. The official EPA position is that they exceed the NAAQS because of the impact of emissions from nearby urban areas. In Region 6, we believe some of these areas are generating their own problems. For example, in 1982 Jefferson County, Texas had VOC emissions totaling 103,800 TPY. By comparison, Dallas County, an urban nonattainment area, had VOC emissions of 82,400 TPY during that same year. The petroleum industry and other sources of VOC emissions in the Gulf Coast area have created this unique situation in Region 6.

Table 1
Rural Nonattainment Areas in Region 6

Orange Co., TX	Ascension Par., LA	Grant Par., LA
Jefferson Co., TX	Iberville Par., LA	Beauregard Par., LA
Victoria Co., TX	St. James Par., LA	Lafourche Par., LA
Brazoria Co., TX	St. John the Baptist Par., LA	Lafeyette Par., LA
Gregg Co., TX	Calcasieu Par., LA	St. Mary Par., LA
Galveston Co., TX	Point Coupee Par., LA	St. Charles Par., LA

3. Regional Agenda

a. Expected Results of Regional Action: (1) The receipt of ozone SIP revisions for the urban areas into the Regional Office in 1985. (2) Development of SIPs in some rural areas in FY 1985; submittal in FY 1986. (3) Generation of reliable information to show the impact of source upsets/malfunctions on attainment. (4) Development and implementation of Inspection/Maintenance (I/M) or Antitampering programs in the majority of the post 1982 nonattainment areas.

b. Extent of State Participation: (1) Texas is currently cooperating with EPA on HC sampling in preparation for ozone modeling to be carried out in the urban areas to determine the emissions reductions needed. Louisiana has also begun an HC sampling program. The State presently has data for Baton Rouge and is working to collect data for rural areas. (2) FY 1985 and FY 1986 air grants will require the states to study the impact of source upsets/malfunctions on attainment.

c. Regional Action/Plans: (1) A major initiative will be required to determine if the problem is due mainly to emissions from automobiles or stationary sources. Also, the impact of source upsets and malfunctions will be adequately evaluated so that corrective measures can be incorporated into the SIP control strategy development process. (2) Ozone modeling will be performed to determine the extent of VOC controls necessary. (3) A set of criteria to determine ozone self-generation in rural areas has been devised by Region 6 Air Branch staff and forwarded to OAQPS for comment. Region 6 intends to identify self-generators by criteria based on air flow patterns, ozone contamination from other areas, and natural ozone levels. Then, Region 6 will call for SIP revisions for VOC controls in the identified counties/parishes. (4) Region 6 plans to finish categorizing the rural counties and discussing the results with the states by Fall 1984. (5) Calls for SIP revisions have been issued by Region 6 to the affected states for the urban areas. (6) Additional HC and NO_x data collection efforts are underway in a 1984 special summer monitoring study. (7) Development of mobile source control programs, such as anti-tampering programs, in all post 1982 non-attainment areas when needed.

d. Timing Requirements: A call for SIP revisions is expected to go out in late 1984 - early 1985. However, it may not include all affected rural areas due to the Region's limited resources. Some will need to be addressed in FY 1985 and FY 1986.

e. Barriers: (1) OAQPS may rule that our Rural Ozone approach is unacceptable, or Texas and Louisiana may take serious issue with our criteria. Any controls ultimately proposed may be difficult to implement because of increased resistance to tighter controls on industries. (2) Modeling difficulties that would delay control estimates as would public protests over the proposed control strategies.

4. Headquarters Action Needed

a. Specific Action Requested: Specific guidance has been, and will continue to be, required for EKMA/OZIPP modeling, collection of HC grab samples, and the use of the Mobile 3 emissions model.

b. EPA Offices and Programs involved: Office of Air Quality Planning and Stanbards, Control Programs Branch, and Office of Mobile Sources.

c. Timing Requirements: A reply to our submittal of July 19, 1984, on the Region 6 classification criteria should be made as soon as possible. Initial decisions on SIP revisions were submitted to OAQPS August 21, 1984. Additional calls will be made as the data are generated in FY 1985 and 1986.

TOXICS

1. Problem Assessment

Existing and potential problems regarding toxics in the environment have been cause for some public concern within Region 6. Primary concerns in addition to those cited under "Ground Water Problems" are with potential air, water, and soil contamination by toxic pollutants from the petrochemical, refining, and chemical manufacturing industries located along the Gulf Coast area from the Houston Ship Channel to the Lower Mississippi River area. EPA and the States are monitoring effluents, receiving waters, and ground waters where the presence of toxicants is suspected. Enforcement of pretreatment requirements and the investigation of potential leaks from underground storage tanks are activities necessary to control potential soil and ground water contamination. Adequate data are not always available to fully assess the health hazard from toxic air pollutants. The Office of Air Quality Planning and Standards has started a pilot program to regulate emissions of acrylonitrile through Memorandums of Understanding (MOUs) with the affected states (Louisiana and Texas in Region 6). This will allow the Region to assess and control potential health hazards from emissions of acrylonitrile in a more timely manner than would occur through the promulgation of a Federal National Emission Standard for Hazardous Air Pollutants (NESHAP).

2. Regional Agenda

a. Expected Results of Regional Action: The following results are expected to be accomplished through Regional actions: (1) major participation by the Region 6 states and local agencies in developing ground water protection strategies, in gathering the required environmental information, and in formulating adequate data bases, to assess, and to implement control measures for problem solutions, in all media (e.g., biomonitoring for various stream segments), (2) vigorous enforcement by Region 6 of the PCB and asbestos regulations focusing inspections upon the sources having the greatest potential for public exposure, (3) the development by Region 6 states of effective toxics programs in all media (4) the use of an integrated, coordinated approach to toxic pollutant problems within the Region, and (5) the negotiation of MOUs with the Region 6 states concerning the regulation of acrylonitrile.

b. Extent of State Participation: State participation is critical to the solution of the Region's toxic problems. With the delegation of many program responsibilities to the states, the state agencies have assumed much of the lead for developing and implementing programs to control the pollution of surface water, ground water, and air toxicants.

c. Regional Actions and/or Plans: Specific Region 6 actions underway to achieve the expected results are the following: (1) the development of a Regional program to provide the Region 6 states with guidance and funds to develop and to implement their own programs for controlling ground water

contamination from toxic pollutants, (2) the identification of specific water bodies which receive toxic pollutants, and the identification of pollutant sources whose permits will be revised to eliminate, or to minimize, toxic pollutant discharges, (3) the continuation of an active Regional air toxics program which provides to the Region 6 states technical information, program coordination, and support to states in developing regulatory programs for a variety of toxic air pollutants, (4) the use of an integrated approach within the Regional Office to coordinate across-media and (5) the drafting of MOUs with Louisiana and Texas for the regulation of acrylonitrile sources.

d. Timing Requirements: Region 6 anticipates having guidance and available funds from CWA Section 106 grants for addressing the ground water toxic pollutant problem by the end of Fiscal Year 1985, and to have implemented ground water protection programs by July of 1986. The identification of specific water bodies receiving toxic pollutants, and the specific sources contributing these pollutants is already underway. Acrylonitrile regulatory MOU's will be initiated with Region 6 states in August 1984, finalized in October 1984, and monitored throughout FY 1985.

e. Barriers: Barriers to the success of the Region 6 toxic-related activities are the following: (1) the absence of technical information and guidance for toxicant monitoring activities in the water and air media, (2) the potential for implementation problems in the regulation of acrylonitrile sources through MOUs, (3) the lack of a focused national toxics strategy, and (4) costly analytical methods and equipment which limit the amount of data which can be effectively obtained.

3. Headquarters Actions Needed

a. Specific Actions Requested: To accomplish the goals regarding the toxics problem within Region 6, the development of a national strategy, implementation guidance, and technical assistance for the air toxics program and for controlling toxicant introduction in all media would greatly enhance the toxics programs of the individual states.

b. EPA Offices and Programs Involved: The Office of Ground Water Protection, the Office of Solid Waste and Emergency Response, the Office of Air, the Office of Pesticides and Toxic Substances and the Office of Drinking Water will be involved in the development of a national toxics strategies.

c. Timing Requirements: Immediate finalization of the national ground water strategy, and the provision of an acceptable national air toxics strategy by mid-FY 1985 will be required.

GROUND-WATER QUALITY PROBLEMS

1. Problem Assessment

Ground water quality in Region 6 is good; no public water supply system has been forced to close because of contaminated ground water. Contamination has occurred, however, and both public and private water supply wells have been affected by localized incidents. There is no consolidated data source available to assess the degree of contamination in the Region, but many aquifers have probably been locally impacted at some time. The knowledge of specific incidents and contaminants is scattered through the files of many State and Federal agencies. A number of potential sources of contamination have been identified in Region 6, including (not in priority order): (a) injection wells, (b) improperly completed or plugged oil and gas wells, (c) water wells which are uncased or unplugged or have leaky casings, (d) recharge wells, (e) unlined disposal pits, (f) solid waste disposal, (g) land application, (h) septic tanks, (i) fertilizer, (j) irrigation return flow, (k) salt water intrusion, (l) deicing salt, (m) accidental spills and leaks of hazardous materials, (n) mining and mill tailings, and (o) leaking storage tanks and pipelines. In summary, problems are localized, causes are varied, a variety of contaminants are involved, and public interest is high. Region 6 States are keenly aware of the importance of the ground water resource, and State regulatory agencies devote considerable effort to the cleanup of past problems and the prevention of future problems.

2. Regional Agenda

a. Expected Results of Regional Action: Actions to be taken in FY 1985 and 1986 are designed to enhance States' capabilities to manage ground water resources, assess control measures for uncontrolled sources, and provide for coordinated Federal and State ground-water activities.

b. Extent of State Participation: State agencies will have the lead role in implementing ground water strategies, on a voluntary basis. For FY 1985, supplemental Section 106 CWA funds will be specifically available for ground water programs. All Region 6 States have an interest in participating.

c. Regional Actions and/or Plans: The agenda for FY 1985 - 1986 is centered on improving existing ground water protection programs by (1) focusing financial and technical resources on State programs, (2) assessing existing uncontrolled sources, and (3) establishing procedures for coordinating ground water policy issues within EPA and for coordinating with other Federal and State ground water activities. To assist in accomplishing these tasks, Region 6 established an Office of Ground Water in the Water Management Division. The function of the Office is to implement the Ground Water Protection Strategy, coordinate regional ground water programs and serve as a clearinghouse for ground water information and data. During FY 1985, the Office will develop a ground water monitoring strategy,

assist States in developing programs and accessing data, and provide technical assistance to States and other EPA programs. In FY 1986, the monitoring strategy will be implemented and the Office will assist States and other EPA programs in implementating strategies and programs. The Hazardous Waste Branch will enhance ground water protection through the enforcement of monitoring requirements, the call-in of Part B applications, and the pursuit of full RCRA delegation to the States. The UIC program will emphasize permitting of existing Class I and III injection wells in delegated States, and implement a program on Indian lands. The Public Water Supply program will participate in analysis of extent and effects of contamination of subsurface drinking water at specific sites, and in implementing corrective or mitigating measures. The Pesticides and Toxics Branch will implement a monitoring strategy to assess ground water impacts from pesticides and to evaluate regulatory needs. The Water Quality Management Branch will assist States in developing and implementing water quality programs. The Surveillance Branch will continue to develop monitoring and data management tools. The Emergency Response Branch will continue its response to emergencies and will work with States on building response capabilities. The Superfund Branch will begin construction on five NPL sites in FY 1985, which include ground water protection, and oversee four enforcement-lead cleanups.

d. Timing Requirements: It is important to begin implementing the ground water strategy in FY 1985 because the strategy should be included in RCRA Part B permitting and Superfund remedial actions which will begin in FY 1985. Also, limited State funding of ground water programs is available under CWA Section 106 for FY 1985.

e. Barriers: Barriers to the successful implementation of the ground water strategy include jurisdictional issues such as quantity vs. quality and complex technical and health issues. Given the leadership the Region 6 States have shown and the available technology, these barriers may be overcome.

3. Headquarters Actions Needed

a. Specific Action Requested: (1) implement the Ground Water Protection Strategy in 1985 so programs can move forward to develop a procedure for applying RCRA ground water requirements to Superfund sites, (2) provide risk assessment methodology for "alternate concentration limits" to finalize remedial plans at several sites, (3) assist in the training and recruitment of ground water professional staff, as a nationwide shortage of qualified geotechnical personnel is hindering program development at the State and Federal level, (4) continue the development of health advisories which are in constant demand by State staff, and (5) revise the allocation formula for ground water grants under CWA Section 106.

b. EPA Offices and Programs Involved: A notable feature of ground water problems is that solutions require the coordination of numerous offices and programs. For the actions requested, involvement of the Offices of Water, Solid Waste and Emergency Response, Human Resource; Management, Pesticide Programs, Air and Radiation, and Research and Development is needed.

c. Timing Requirements: The Ground Water Protection Strategy should continue as a priority and be implemented in Fiscal Year 1985. Likewise, resolution of Superfund/RCRA ground water clean-up issues is needed as soon as possible. Recruitment, training, and development of health advisories should be ongoing acitivities. Revision of the 106 allocation formula is needed during FY 1985 so that subsequent ground water grants will provide resources in relation to needs.

PESTICIDE DRIFT

1. Problem Assessment

The drift of pesticides applied to agricultural crops onto nontarget areas is the major pesticides enforcement problem within Region 6. The population growth in the Region has increased the problem as the urban population moves into areas which are still agricultural.

2. Regional Agenda

a. Expected Results of Regional Action: The Region will continue to actively work with the states to improve the State/EPA pesticides enforcement program in Region 6. Pesticides drift is a long-term problem which will not be solved in one year. A continued strong pesticides enforcement and outreach program should minimize the problem. This is a long-term problem for which the states have primacy and which is being addressed through a cooperative grant program. EPA provides grant funding, training, and oversight to the states. The Region will also continue to encourage the states to use innovative techniques in addition to traditional enforcement actions to address the problem.

b. Extent of State Participation: Section 26 of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) delegates primary enforcement responsibility for pesticide use violations to the states. Region 6 has cooperative enforcement agreements with all five states which include the regulation of the distribution and use of pesticides within the state. The states take enforcement action under state law, but may refer state investigations to EPA for enforcement action under FIFRA.

The states, through a priority setting process, analyze their priority problems each year. Four of the states (Arkansas, Louisiana, Oklahoma, and Texas) determined that drift of pesticides onto nontarget areas is the priority problem in their states. In addition to traditional enforcement actions, the states are utilizing several different innovative techniques. These techniques include preseason inspections of commercial applicators in Arkansas to caution them about drift, increasing the penalties for misuse in Louisiana, the use of press releases by Oklahoma to publicize applicator license suspensions and revocations in the area where the offenses occurred, and the classification by Texas of nine herbicides, which were involved in many drift cases, as state-limited-use pesticides which can be used only by trained applicators.

c. Regional Actions and/or Plans: The Regional Office will continue to provide pesticides enforcement grant funds, training, and oversight to the state lead agencies for Arkansas, Louisiana, Oklahoma, New Mexico, and Texas. For FY 1985, Region 6 is authorized to provide $1,092,900 to the States. EPA provides up to 85 percent of the funding to the States to conduct this grant program.

The Region also provides training to state personnel in investigative techniques and case preparation. At least two States, Louisiana and New Mexico, have requested EPA participation in training courses. Louisiana plans a criminal investigation course, and New Mexico will hold a case preparation course for all inspectors. The Regional Office conducted a case preparation course in FY 1984 for personnel from all five states.

d. Timing Requirements: The enforcement grant assessments are conducted in November and April. The state training courses are scheduled for the first quarter of FY 1985. The Regional Office works with the States throughout the fiscal year on individual cases.

e. Barriers: The primary barrier is State and Regional Office resources. Both have limits on the number of personnel and funding available to devote to the problem, which is complicated by the growth of the regulated community in Region 6.

3. Headquarters Actions Needed

a. Specific Action Requested: Continue to provide the annual grant guidance to the Regions. Continue to support the State/Regional pesticides enforcement program. The training staff at the National Enforcement Investigation Center have been very helpful in participating in training courses for state personnel.

Additional funding is needed for laboratory equipment. High quality state labs are needed to support enforcement investigations with the analaysis of residue samples.

b. EPA Offices and Programs Involved: Compliance Monitoring Staff, Office of Pesticides and Toxic Substances.

c. Timing Requirements: Training courses will be held in the first quarter of FY 1985. The grant guidance is issued in the second quarter.

NONPOINT SOURCE POLLUTION

1. Problem Assessment

The Region does experience water quality problems as a result of nonpoint source pollution (NPS). The severity and extent of NPS pollution vary within each State. Agricultural NPS pollution, urban runoff, and residual wastes from septic tanks are frequent contributors to surface water and ground water quality problems. Some waterways and lakes within the Region are so heavily impacted by NPS pollution that expensive state-of-the-art treatment is required of both municipal and industrial dischargers to meet water quality standards (WQS). Despite a considerable investment of State and Federal resources in NPS problem identification over the past several years and efforts to institute both voluntary and regulatory controls, much remains to be done.

2. Regional Agenda

a. Expected Results of Regional Action: The ongoing efforts by the Region and States are to identify waterbodies which are most affected by NPS pollution, to identify and quantify contributions by category or source, and to identify effective controls. These efforts will provide the Region the necessary information to address the NPS problem.

b. Extent of State Participation: The States have been evaluating site specific areas and stream segments which are impacted or have been determined to have the highest potential for water quality problems due to NPS pollution. They state in their water quality management plans that they prefer a voluntary control program; however, they feel that a regulatory program is effective for some types of NPS, e.g., feedlot permits, urban runoff, and construction runoff ordinances. The States have been working for many years at the grassroots levels with the Soil Conservation Service and the Agricultural Stabilization and Conservation Serice, improving the awareness of NPS pollution and soil conservation through informing and educating the public.

The results of these evaluations have given the Region a better understanding of the problems and the needs. We expect the majority of Section 208 NPS pollution studies to be completed by the end of 1984.

c. Regional Actions and/or Plans: Pending the development of national NPS policy, strategy, and funding for implementation, the Region will continue to work with the states to further identify, quantify, and address NPS problems. In addition to ongoing Section 208 studies, additional efforts are being made through partial funding with Section 205(j) grants, as well as independently funded State projects.

d. Timing Requirements: Without the implementation of effective NPS controls within the next 5 years, several major waterbodies within the Region will not achieve existing WQS despite the construction of state-of-the-art treatment facilities by municipal and industrial dischargers. In

a few instances, it is possible that waterbodies may achieve non-nuisance conditions despite stringent control of point source dischargers.

e. Barriers: Primary barriers are the lack of overall national NPS policy and implementation strategy which include a discussion of resources.

3. Headquarters Actions Needed

a. Specific Action Requested: Issuance of a national NPS policy and strategy and issuance of the Water Quality Management (WQM) regulations which should include language on nonpoint sources.

b. EPA Offices and Programs Involved: Office of Water

c. Timing Requirements: Issuance of the NPS policy and strategy and WQM regulations should be completed no later than the end of FY 1985, in order to impact FY 1986 WQM grants.

SLUDGE MANAGEMENT AND DISPOSAL

1. Problem Assessment

Sludge management and disposal problems are Regional in scope and vary in complexity and magnitude from location to location. Growth of municipalities and wastewater treatment facilities to meet water quality demands generate more sludge each year. Ineffective solids removal by wastewater treatment systems pass sludge into the receiving waters. Inadequate sludge management programs create environmental problems. Major impacts are possible contamination of food sources, ground and surface waters, transmission of disease, odors, flies, and fear of the unknown. The level of public concern generally is low; however, when ineffective sludge management programs result in contamination, public concern becomes high. Also, public concern becomes high on an individual basis when sludge is introduced for the first time in the local environment without adequate public participation and education. Major sources and causes are municipal wastewater treatment facilities, industrial processes, and ineffective or non-existent sludge management programs, inappropriate technology, and lack of pretreatment. Sludge contaminants of concern are pathogens and toxic substances, including hazardous wastes and heavy metals.

2. Regional Agenda

a. Expected results of Regional Action: (1) a continuous public information/education and technology transfer program through state agencies and universities for consulting engineers, local governments, equipment manufacturers, and sludge handlers; and (2) State implementation of the Policy on Municipal Sludge Management.

b. Extent of State Participation: (1) All states have been delegated the Municipal Sludge Management and Disposal Program and full participation is anticipated; and (2) each state has a Municipal Sludge Management Coordinator to spearhead the state effort.

c. Regional Actions and/or Plans: Region 6 has a Regional Municipal Sludge Management Coordinator and has issued Regional strategy and guidance for municipal sludge management; co-sponsored one and participated in two state sludge management workshops; encouraged beneficial reuse of sludge through land application systems; maintained continuous public information/education and technology transfer programs working through university and agricultural extension/cooperative systems; and conducted one annual state sludge management coordinators meeting.

For FY 1985, we will co-sponsor and participate in a sludge management workshop in each state and, on an ongoing basis, will update Regional strategy and guidance in accordance with current EPA policy; work with each state agency with responsibility for sludge management and with state universities to jointly develop plans to continue public information/education

and technology transfer; conduct on-site inspections on construction grants projects involving sludge treatment and disposal; and work with the enforcement program to enforce regulations when the state agency fails to enforce.

d. Timing Requirements: A sludge management and disposal program for each fiscal year is planned, including specific objectives to be accomplished with budgets and dates for accomplishing the objectives.

e. Barriers: (1) Public often fears sludge because of misunderstanding and misinformation (This can be overcome if they are educated in the safe and beneficial uses of sludge); (2) institutional barriers (too restrictive state codes in land application and reuse of sludge); and (3) design bias of consulting engineers.

3. Headquarters Action Needed

a. Specific Action Requested: (1) provide personnel and financial assistance in conducting seminars/workshops; and (2) proceed with timely publication of regulations and guidance to support EPA Policy on Municipal Sludge Management.

b. EPA Offices and Programs involved: OWPO, MERL (Solid Waste and Technical Support Division)

c. Timing Requirements: Same as Regional. Each fiscal year will have a plan with objectives and goals.

LEAKING LANDFILLS

1. Problem Assessment

A major Regional problem involves the protection of ground water from contamination by RCRA and Superfund sites. There are currently 30 sites on the National Priorities List (NPL) for Superfund in the Region. Six sites are in Arkansas, 5 in Louisiana, 4 in New Mexico, 4 in Oklahoma, and 11 in Texas. At present, 1 additional site has been submitted for inclusion on the NPL by Arkansas, 1 by New Mexico, and 12 by Texas. The contaminants of concern are many and varied. The effect of a large number of facilities in the Region subject to RCRA ground water provisions (302 - the highest in the nation) and sites which have had previous improper disposal practices can be serious. The stabilization of existing leaking landfills and the need for ground water monitoring at hazardous waste sites are concerns shared by the RCRA and Superfund programs.

In Region 6 the effects of leaking landfills are complicated by geographical diversity ranging from subtropical to arid areas. The subtropical areas of Southeast Texas and Southern Louisiana produce the extremely complex hydrogeological combination of shallow ground water tables, with a stratigraphy of clay lenses mixed between silty clays and sands. Point bars, saltwater intrusion, and interconnection of shallow aquifers with coastal areas or rivers complicate the determination of groundwater flow rates and directions. This is contrasted by the much more arid area of Western Texas, Oklahoma, and New Mexico where ground water tables are deeper.

Future Regional action is dependent on Headquarters directives and the magnitude of the problem at active RCRA facilities and abandoned sites that have the potential for inclusion on the NPL. Although RCRA noncompliance rates are controversial and at times subjective, our State overview inspections show a 48 percent noncompliance rate through the first half of FY84.

The current proposed policy promoting land treatment instead of disposal of wastes from Superfund sites will affect the selection of remedies at the sites.

2. Regional Agenda

a. Expected results of Regional Action: In the Superfund program, the initial action will be the placement of more sites into the Emergency and Remedial Response Inventory System (ERRIS) for further assessment and possible placement on the NPL. The Region primarily identifies candidate NPL sites through the RCRA 3012 program with funding available to all States. Candidate NPL sites are ranked, based on hazard potential, jointly by EPA and the States. These sites, when added to the NPL, will then be funded for remedial activities, including remedial design and construction.

The RCRA program is developing a comprehensive ground water evaluation plan to be carried out in FY 1985 at all commercial landfills, facilities undergoing closure, at facilities in assessment monitoring, and at facilities with previous ground water violations. Results of this action will be earlier detection of potential problems at RCRA landfills.

b. Extent of State Participation: States nominate all new sites considered for the NPL by the Regional office and may keep the lead responsibility for site work if they wish. Currently, the State of Texas may take the lead responsibility at its nominated NPL sites.

All the States in Region 6 except Arkansas will receive interim preliminary assessment/site inspections (PA/SI) funding to continue existing scopes of work established by the RCRA 3012 program. Later, in FY 1985, a new type of cooperative agreement for funding of these activities will be available.

c. Regional Actions/Plans: In FY 1985, the RCRA program will be conducted by the States through the Enforcement Memorandum of Understanding. This memorandum will provide a much clearer picture of RCRA facility compliance, including ground water monitoring and contamination. Compared to other parts of the country, Region 6 has had some success in limiting leaking hazardous waste landfills. This effort has been resource intensive. We seriously question whether our projected FY 1985 and FY 1986 resources will be adequate to perform the landfill permitting effort. However, the comprehensive ground water evaluation process should be implemented in FY 1985 to provide the Region with necessary additional ground water information.

The Superfund program will coordinate NPL site submittals by the States and assist the States in funding requests for site-specific work as well as continuing PA/SI activities. In addition, the Regional office will retain the lead responsibility at all sites that are not State lead.

d. Timing Requirements: The NPL Update, to include all newly nominated sites, is scheduled for publication in October 1984.

e. Barriers: (1) Lack of approved ground water strategy for use by the Superfund and RCRA programs. (2) Timing is crucial to the Region because most Superfund sites in the area have reached stages where waste disposal is a relevant problem.

3. Headquarters Actions Needed

a. Specific Action Requested: At the Headquarters level, more specific guidance suited for the problems Superfund faces in waste disposal is mandatory. The Regional office is currently reviewing guidance developed by Headquarters on the waste disposal issue prompted by Superfund sites. However, the timeframe for implementation of this guidance remains a major factor.

b. EPA Offices and Programs involved: Office of Emergency and Remedial Response, Office of Solid Waste.

c. Timing Requirements: Guidance on implementing the proposed ground water strategy is needed as soon as possible.

MEXICO/UNITED STATES BORDER PROBLEMS

1. Problem Assessment

The most significant Mexico/United States border problems will be addressed through implementation of the Environmental Agreement signed by the Presidents of Mexico and the United States. Issues being evaluated by Mexico/United States work groups include: (1) impact of air emissions in Ciudad Juarez, Mexico, upon air quality (especially levels of CO and O_3) of El Paso, Texas; (2) impact of raw sewage discharge from Nuevo Laredo, Mexico, upon water quality of the Rio Grande River; (3) transportation of hazardous wastes and toxicants across the border; and (4) the need for a Mexico/United States International Contingency Plan to deal with oil and hazardous substances pollution incidents. Competing priorities may delay implementation of recommended actions.

Another significant border problem relates to the Cobalt-60 radiation contamination of steel products in Ciudad Juarez, Mexico, and the need to insure that future incidents are effectively covered under the International Contingency Plan.

2. Regional Agenda

a. Expected Results of Regional Action: Actions taken by both countries under the Environmental Agreement should result in (1) a recommendation for a more extensive border air monitoring program to obtain actual transported pollutant values from Juarez, coordination of air control strategies for El Paso consistent with Clean Air Act requirements, and continued encouragement of the exchange of emissions data and ambient data consistent with the spirit of the 1983 U.S.-Mexico environmental agreement; (2) a proposal for the planning, funding, and constructing of sewage treatment facilities for Nuevo Laredo; (3) a better picture of the hazardous waste transportation activity along the border, and a base for determining what additional measures, if any, need to be taken to regulate it; (4) better knowledge of the hazardous spills problem along the border, and a plan for joint responses to future spills; and (5) knowledge of, and control over the transportion of material contaminated by the recent cobalt-60 incident.

b. Extent of State Participation: (1) The Texas Air Control Board is a participant in the El Paso Air Quality Work group; the State and EPA are cooperating in a hydrocarbon monitoring project; the state will conduct air modeling exercises in El Paso for CO and O_3; (2) the Texas Department of Water Resources is a participant in the Nuevo Laredo/Water Quality Work Group; (3) the States of Texas and New Mexico will need to track hazardous waste shipments crossing the border under RCRA delegations; (4) the States of Texas and New Mexico will need to participate in the development of a Mexico/United States International Contingency Plan and associated Border Response Teams, (5) the States of Texas and New Mexico have had direct involvement in the Ciudad Juarez Cobalt-60 incident and are contining radiation monitoring at border crossings.

c. Regional Actions/Plans: (1) to participate in work groups established under the Mexico/United States Environmental Agreement to address problems associated with air quality in Ciudad Juarez/El Paso, water quality of Rio Grande River at Nuevo Laredo/Laredo, hazardous waste shipments crossing the border, and emergency response planning for pollution episodes along the border; and (2) to cooperate with the States of Texas and New Mexico and the Nuclear Regulatory Agency during followup activities of the Ciudad Juarez Cobalt-60 incident and in planning to prevent future similar incidents.

d. Timing requirements: (1) the Environmental Agreement Work Groups will submit reports to Mexico and to United States coordinators in October, 1984, and the EPA Office of International Activities (OIA) will set an agenda between those coordinators; (2) Texas CO modeling and HC monitoring results for EL Paso are due by early fall, 1984, with SIP revisions due by February, 1985.

e. Barriers: (1) competing priorities may delay implementation of recommended actions; (2) any one party to the agreement has little leverage with the other parties; and (3) the region is not routinely notified of international shipments of hazardous wastes.

3. Headquarters Actions Needed

a. Specific action requested: (1) continue emphasis through EPA OIA and the State Department for the effective involvement of Mexico in carrying out the Environmental Agreement; (2) establish an OIA system to notify the Reigon of international shipments of hazardous wastes; and (3) review the policy or air quality attainment dates for international border areas (1987 may be unrealistic for El Paso to meet attainment).

b. EPA Offices and Programs involved: Office of International Activities (OIA), Office of Radiation Program (ORP), Office of Water Regulations and Standards (OWRS), Office of Air Quality Planning and Standards (OAQPS), Office of Solid Wastes (OSW), and Office of Emergency and Remedial Response (OERR).

c. Timing requirements: (1) The Guidance for CO modeling is needed as soon as possible; (2) the decision on attainment dates for border areas should be made by Headquarters prior to fall 1984; and (3) the EPA OIA sets agenda for Mexico/United States coordinators meetings under the Environmental Agreement.

Part III, Regional Recommendations for the Fiscal Year 1986-1987 Priority List

We have reviewed the Fiscal Year 1985-1986 Priority List and we do not recommend any deletions. Two Region 6 specific priorities (Growth and Border Problems) do not appear on the list. They are significant to only our region and possibly a few others, and for that reason may not be appropriate for inclusion as national priorities.

The Region 6 priorities for environmental and administrative action are reflected in Part II. Our ranking in Part II reflects the Regional view of the priority which should be assigned to these problems.