Model Program Procedures for the Development of the Ciudad Juárez, Chihuahua / El Paso, Texas / Doña Ana County, New Mexico Clean Air Investment Fund

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1.0 Background

In January 2001, the U.S. Environmental Protection Agency (U.S. EPA) published its final guidance titled, Improving Air Quality with Economic Incentive Programs. These programs were intended to provide flexibility in complying with the Clean Air Act. Part of this guidance included the ability to establish a Clean Air Investment Fund (CAIF). A CAIF is intended to lower the cost of compliance for sources that have to meet ozone or particulate matter standards by allowing them to pay a cost per ton value in lieu of installing the necessary control technologies. The fund then uses the money to find less costly emissions elsewhere within the air basin. The fund can also be used to try to attract investment into technology innovation and program development to improve the long-term air quality.

The Joint Advisory Committee for the Improvement of Air Quality in the Ciudad Juárez, Chihuahua / El Paso, Texas / Doña Ana County, New Mexico Air Basin (JAC), which is a bi-national group that addresses air quality issues, determined that a CAIF might be a good mechanism to use in the El Paso/ Juárez / Doña Ana County air basin. This air basin experiences air quality issues related to industrialization, transportation, and urbanization. Areas of El Paso have been designated non-attainment under U.S. standards for three pollutants – particulate matter, ozone, and carbon monoxide. The use of the CAIF in this area could allow cost relief on the U.S. side of the border and facilitate voluntary reductions on the Mexican or U.S. side of the border.

The JAC recommended that EPA Region 6 look into the possibility of establishing a CAIF for this air basin. EPA Region 6 contracted with the Environmental Finance Center at the University of New Mexico to examine the issues associated with establishing a CAIF and to develop procedures that might be used to set up the fund. The remainder of this document discusses recommendations of how to proceed in setting up the fund. Appendix 1 contains an example of the process for using the CAIF.

1.1 Air Basin Boundaries

The boundaries of the air basin for the purposes of the CAIF were defined in Appendix 1 of Annex V to The Agreement Between the Government of the United States of America and the Government of the United Mexican States on Cooperation for the Protection and Improvement of the Environment in the Border Area (also known as the La Paz Agreement.) The air basin is defined as the geographic area that includes El Paso County, Texas, and those parts of Doña Ana County, New Mexico and the metropolitan area of Ciudad Juárez, Chihuahua that are within 100km of the border.

2.0 Purpose of Clean Air Investment Fund

The CAIF is intended to address several needs in the El Paso/ Juárez / Doña Ana County air basin. The various uses of the CAIF are discussed below.

- **CAIF As A Compliance Relief Valve:** The CAIF can provide entities a lower cost means of complying with regulations by capping the amount of money the entity would have to pay for a ton of reductions. The fund would then find lower cost emission reductions elsewhere in the air basin to achieve compliance. This relief mechanism may be related to compliance with current standards or may occur as the result of new or increased air standards.

- **CAIF For Long-Term Maintenance:** If the El Paso area is re-designated as an attainment area, there will be a need to set up mechanisms to keep the area's air quality from degrading. The CAIF may be one tool to allow the regulators to accomplish this task.

- **Voluntary Compliance:** The air pollution in the El Paso/ Juárez / Doña Ana County Airshed is coming from sources who are required to comply with regulations as well as sources who are not (such as small industries, unpaved streets, open trash burning, brick manufacturing, etc.). These emitters may be willing to reduce emissions if they receive cash payments from a CAIF. The money for this voluntary compliance may come from voluntary payments from industries, foundations, or others or it may be "left-over" money from transactions.

- **Voluntary SEPs:** Texas has a program to allow industries to do supplemental environmental projects (SEPs) as part of a penalty for having violated a regulation. These "required" SEPs are not eligible to be part of the CAIF. However, there is the possibility of voluntary SEPs. For example, a company, an industry, a foundation, or others may wish to do a SEP that would improve air quality in the area by paying some money into the Fund that is then used by the Fund to pay for SEPs in the area.

- **Research and Development:** Companies or others interested in sponsoring research into air pollution control equipment can invest money into the fund that can be pooled together to fund particular research into new technologies or pollution prevention techniques.

- **Border-wide CAIF:** If a CAIF is started in this air basin, the CAIF concept can be used all along the border in areas facing air pollution problems. The learning experience here will be translated to other border areas.

- **CAIFs Elsewhere in the Country:** The learning experience of the CAIF in this airs basin can be applied elsewhere in the country where CAIFs may be important. This may also be true in Texas, where CAIFs may be desirable in Dallas, Houston or other cities for compliance purposes.

3.0 Management of Clean Air Investment Fund

The financial side of the CAIF will be managed by the North American Development Bank (NAD Bank). The regulatory aspects of the CAIF will be managed by the CAIF Project Team. Overall direction of the fund will be provided by the CAIF Policy Board. All of these groups will interact in a variety of ways. The roles and responsibilities of each are discussed below and Figure 1 presents a flow chart of the interactions.

3.1 Policy Board

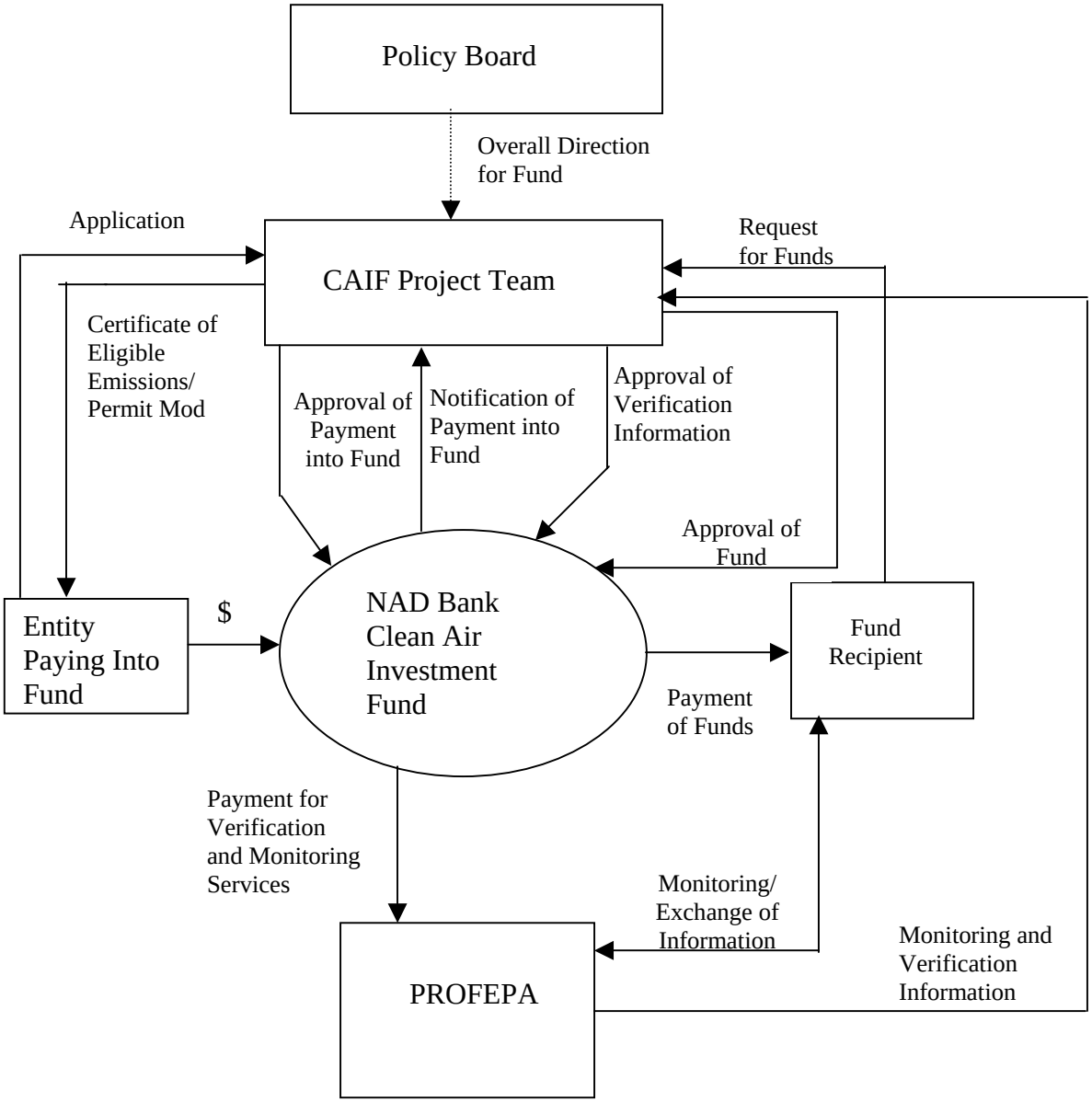
The function of the Policy Board will be to provide overall direction for the fund. This group will provide input to the CAIF project team on various items such as: identification of entities who may wish to pay into the fund, identification of entities who may wish to receive money from the fund, comments regarding the annual review of the fund, future directions for the fund, and other similar activities. The Policy Board will meet semi-annually. This Board will not be involved in individual CAIF transactions and has no authority to approve or deny an individual action of the CAIF.

The Policy Board will be made up of representatives from: state regulatory agencies on both the U.S. and Mexican sides of the border, federal regulatory agencies from both sides of the border, NAD Bank, Border Environment Cooperation Commission, industrial representatives (one U.S., one Mexican), community representatives (one U.S., one Mexican) from the Air Quality Task Force, representatives from local environmental groups, and two Joint Advisory Committee (JAC) representatives. The Policy Board will elect a Chair and Vice-Chair from within the membership. The Chair will serve a 2-year term. At the end of the term, the Vice-Chair will assume the duties of the Chair and a new Vice-Chair will be elected. The Chair will set the agenda for the bi-annual meetings and facilitate the meetings. The Vice-Chair will record the meetings and send out minutes to the Board. The Chair will be responsible for ensuring communication between the Policy Board, the CAIF Project Team and NAD Bank.

3.2 CAIF Project Team

The CAIF Project Team will manage the actual transactions. This includes addressing the regulatory side of the transactions and some of the financial aspects of the transactions (i.e., how much will be paid into the fund and how much will be paid to entities receiving the funds). The Project Team will be coordinated by NAD Bank and will include qualified technical experts from the regulatory agencies on both sides of the border.

Figure 1
Flow Chart for Operation of CAIF



The activities of the CAIF Project Team related to payments into the fund in lieu of compliance would include the following:

- Regulatory review by the appropriate agency of the acceptance of the payment into the fund in lieu of compliance. In Texas it would be the Texas Commission on Environmental Quality (TCEQ) and in New Mexico it would be the New Mexico Environment Department (NMED).
- Identification of projects, companies, ideas for reduction of pollutants (must be a minimum of 10% greater reduction than would have occurred with direct compliance).
- Negotiation with project locations/sponsors to make sure they will agree to receive the money and participate in the project.

3.3 CAIF Financial and Operational Entity

The CAIF fund will be administered by the NAD Bank. The NAD Bank will accept payments into the fund and make payments to the appropriate entities out of the fund. The regulatory portion of the transaction – the approval of the payment in lieu of compliance and the identification of the entity to receive the money and reduce emissions – will be completed in coordination with the CAIF Project Team. However, the monetary part of the transaction and the actual preparation of the contracts between NAD Bank and the entities paying into and receiving money out of the fund will be the responsibility of NAD Bank and will not require the approval of the CAIF Project Team.

NAD Bank will receive a transaction fee for the operation of the fund. On an annual basis NAD Bank will provide a complete financial report of all payments into the fund and all expenses out of the fund, including initial and final fund balances, to the CAIF Project Team. As part of the annual report, NAD Bank will certify that all money contributed to the CAIF related to air pollution control.

If the NAD Bank wishes to operate Clean Air Investment Funds in other parts of the border, it will maintain a separate accounting procedure for the El Paso/ Juárez / Doña Ana CAIF.

3.4 Border Environment Cooperation Commission Certification

In general, the Border Environment Cooperation Commission (BECC) must certify all projects that will use NAD Bank funding. In this case, NAD Bank will be acting as a financial agent to move money from the entity paying in to the entity paying out, but will not actually be funding the projects. Therefore, rather than certifying each project, the BECC may certify the fund in general. The BECC will also be asked to serve on the CAIF project committee so that if any additional BECC involvement is required it may be done early on in the project.

If NAD Bank wishes to use the CAIF as a mechanism to fund a particular project or to add additional funding to a project being completed by the CAIF, further BECC certification may be required. In these cases, BECC may need to certify the individual transaction. The CAIF Project Team will make this determination.

4.0 Entities Paying Into CAIF

Various entities will be eligible to pay into the CAIF, depending on the purpose of the payments into the fund. The types of entities who may pay into the fund are listed below.

- Industries/companies paying in lieu of compliance.
- Federal regulatory agencies, such as U.S. EPA to seed the fund, to contribute to a research effort or to contribute toward air quality improvements via voluntary compliance.
- State regulatory agencies, such as the TCEQ or NMED to contribute to a research effort or to contribute toward air quality improvements via voluntary compliance.
- NAD Bank to facilitate air quality improvement projects or to supplement funding from other voluntary sources.
- Private foundations to contribute to a research effort or to contribute toward air quality improvements via voluntary compliance.
- Industries/companies paying for research into air emissions reductions.
- Industries/companies paying for local air quality improvements.
- Private individual contributing toward air quality improvements or air quality research.

One role of the management team of the CAIF (the NAD Bank, the Policy Board, and the CAIF Project Team) will be to publicize the existence of the fund and the ways in which individuals, governmental entities, industrial facilities, and others can contribute to the fund or benefit from it. The funding that comes from these voluntary sources will supplement any money in the fund that was paid in lieu of compliance. The money paid into the fund from these voluntary sources is more flexible in terms of how it can be spent and allows the fund to accomplish additional goals. A preliminary application for companies wishing to pay into the Fund in lieu of compliance is found in Appendix 2.

5.0 Entities Receiving Money From the CAIF

There are many types of eligible entities who can receive money from a CAIF. Examples of these entities are listed below.

- Industry/company to put emission controls in place.
- Local Governmental entity to install emission controls on mobile sources or for projects such as street paving.
- Non-governmental organization (NGO) to facilitate installation of emission reduction controls or projects.
- Universities for research into emission control technologies.
- Private research firms for research into emission control technologies.

5.1 Development of Projects for Emission Reductions

The CAIF will need to maintain an inventory of potential projects that can receive money from the fund in return for emission reductions. The fund needs to have an inventory that includes a variety of projects of different types of emission reductions. These projects can be anywhere in the air basin, although the fund will favor those projects that give the greatest reductions for the least amount of money. The development of this inventory of projects can be completed by the following methods.

- NAD Bank can promote the CAIF concept in the air basin and solicit projects.
- JAC members can suggest opportunities for projects in the air basin and either alert NAD Bank or the CAIF Project Team of the possibilities or encourage the potential recipient to submit a CAIF Recipient Application.
- CAIF Policy Board can suggest particular types of projects that it would like to see the fund used for and can identify potential recipients within these sectors.
- BECC can suggest potential projects to the CAIF project team or encourage potential applicants to submit a CAIF Recipient Application.

The more the CAIF can maintain an inventory of potential projects, the more efficiently the fund will run. This inventory also increases the likelihood that the fund can meet its obligation to achieve the required reductions and reduces the risk for companies paying into the fund in lieu of compliance.

In addition to using this inventory to meet the fund's obligation for compliance purposes, the inventory can also be used to identify projects that can receive money from voluntary contributions. Universities or research firms that do research in air emission reductions or pollution prevention may also wish to submit applications to the fund for consideration. These applications will be considered if the fund has voluntary contributions or if the fund has a remaining balance after meeting its emission reduction obligations.

5.2 CAIF Recipient Application

To create the inventory of potential projects, the potential recipients will need to fill out a CAIF Recipient Application – Part 1, which can be found in Appendix 3. This application will provide preliminary information to determine what type of project and what type of emissions will be controlled with the project. If the project is considered for funding, the application will need to be supplemented with a thorough financial review and will need to undergo a surplus evaluation (described later in this document.) The intent of the Recipient Application is to provide information to the fund without being excessively burdensome or onerous to the applicant.

The CAIF recipient will be required to enter into a contract with the CAIF fund manager (NAD Bank) stating that the entity agrees to install or construct the necessary facilities to reduce the emissions as a condition of payment. Further, the contract will include a provision that the entity will continue to operate those facilities for as long as the entity

remains in operation, or an agreed upon time limit, or until the emission reductions are no longer required by the CAIF, with an agreed upon penalty for failure to do so. The penalty might be a withholding of CAIF annual payments or an agreement that the entity will not be allowed to operate while it is out of compliance with its air emission requirements. This issue will be discussed further in Section 7.3, Enforceability.

6.0 Using CAIF Revenues

The money paid into the fund can be used for several different purposes as described below.

- To pay to sources who agree to reduce emissions voluntarily (could be a stationary or mobile type source).
- To purchase emissions from an emissions trading market.
- To sponsor alternative environmental abatement programs, such as pollution prevention programs or transportation system improvements.
- Funding research in innovative technologies or innovative abatement strategies.

The blend of funds used for these different purposes will depend on the fund's ability to find and achieve required reductions. The most important aspect is the payment for emission reductions. After the reductions have been achieved, the CAIF Project Team can review the options available and use funds for additional purposes. The additional purposes should follow the programmatic direction established by the Policy Board.

6.1 Use of Federal or State Funding

Under Texas regulations, if any federal or state governmental entities put money into the CAIF and this money is subsequently used to pay for emission reductions, those reductions cannot be used to offset emissions being produced by companies paying in lieu of compliance. Only non-federal funds may be used to provide the offsetting emission reductions. Therefore, it will be important for the NAD Bank fund managers to maintain strict records on source of funding and use of funding. This issue may become important if the fund tries to "bank" emissions to ensure that it can meet its regulatory/compliance obligations. For example, if EPA had invested money into the fund and that money was used to pay for pavement of streets in Juárez to provide "extra" emissions reductions credits, the credits could not be counted towards compliance.

6.2 Annual Payments into and out of the CAIF

An entity paying into the CAIF in lieu of compliance must provide a payment on a per ton basis every year they wish to use the CAIF as their compliance mechanism. The payment must be made at the same time each year based on the time of the first payment. For example, if the first payment was made in October, all subsequent payments must be made in October.

The payment process out of the fund may be slightly different. The entity that will be making the emission reductions will receive an initial payment to install the equipment or complete the necessary project. This payment may be for the entire amount of the initial capital cost or it may be for less than the entire amount if the entity will be providing any cost share or cost match. Depending on the project, this initial payment may be the entire payment or there may be a supplemental payment on an annual basis to provide for operation and maintenance costs or for annual monitoring and reporting. The nature of the individual project will determine if the payment is a one-time or reoccurring one. This decision will be made by the CAIF Project Team and will be made in consultation with the entity receiving funds.

7.0 CAIF Fundamental Elements

7.1 Surplus Evaluation

There must be a determination that the pollutant reductions that will occur as a result of the CAIF are surplus emissions. From EPA's guidance document, emission reductions used to meet air quality attainment requirements are surplus as long as they are not otherwise relied on in air quality-related programs related to a SIP, SIP-related requirements, other State air quality programs adopted but not in the SIP, a consent decree, or Federal rules that focus on reducing criteria pollutants or their precursors. In the event that the CAIF's programmatic emission reductions are relied on to meet air quality-related program requirements, they are no longer surplus.

A preliminary surplus evaluation will be made at the time a CAIF Recipient Application is received. Once an application is received, the appropriate regulatory agency from the CAIF Project Team will be asked to make an initial determination of the surplus nature of the emission reductions. The regulatory agency will be determined based on the location of the proposed project. If the project is in the El Paso area, TCEQ will make this determination. If it is in Ciudad Juárez, it will be Procuraduria Federal de Proteccion al Ambiente (PROFEPA), and if it is in Doña Ana County, it will be NMED.

The first part of the surplus determination will be a review of whether the proposed project is one that is subject to air quality regulations of any type. The next determination will be whether or not the proposed project involves emissions that are in any way relied upon by the El Paso SIP or any SIP-related requirements. That determination must be made by TCEQ. If the emissions are neither regulated nor required as part of the SIP, the entire quantity of emissions reductions will be considered surplus. (The determination of the quantity of emissions is discussed in the quantifiable section below.) The applicable regulatory agency will provide a Surplus Evaluation – Preliminary Determination Form to the CAIF Project Team.

If the project involves a facility or activity that is regulated at least to some degree, the surplus evaluation needs to take into account the quantity of emissions that are required to meet the permit or air regulation (either in the U.S. or in Mexico). Only those emissions that are greater than those required by the regulation would be considered

surplus in this case. However, the surplus evaluation would no longer be applicable if the regulations became more stringent and the facility or activity was required to reduce its emissions further than at the time of the original determination. If this situation occurs at any point in which the project is being used by the CAIF for compliance purposes, alternative emission reductions must be sought by the CAIF elsewhere. In addition, the project will no longer continue to receive CAIF funds for the portion of the emission reductions that are no longer surplus. Similar to above, the applicable regulatory agency will provide a Surplus Evaluation – Preliminary Determination Form to the CAIF Project Team.

The process described above is related to the preliminary determination of whether the proposed projects would meet the definition of surplus. At the time the CAIF desired to actually fund one of the projects for compliance purposes, a final definition of surplus would be made by the applicable regulatory agency. The final determination would include a calculation or estimation of the emission reductions that would occur as a result of the project as well as a final determination that the emissions are indeed surplus. The regulatory agency would complete a Surplus Evaluation – Final Determination Form and submit it to the CAIF Project Team. The CAIF Project Team would review the form and determine if any additional information were required. The CAIF Project Team would also ensure that a copy of the Surplus Evaluation – Final Determination Form were received by the appropriate regulatory agency (the agency having jurisdiction over the entity wishing to pay into the CAIF in lieu of compliance).

7.2 Quantifiable

According to EPA guidance, emissions and emission reductions are quantifiable if you can reliably and replicably measure or determine them. In terms of source-specific quantifiability, the generation or use of emission reductions by a source or group of sources is quantifiable if they can reliably calculate the amount of emissions and/or emission reductions occurring during implementation of the program, and replicate the calculations. Generally, sources may not include ***fugitive emissions*** when quantifying emissions associated with the CAIF. When quantifying results, sources must use the same methodology used to measure baseline emissions unless there are good technical reasons why this is not appropriate. If sources intend to use alternate approaches, supporting documentation must be provided.

In order to quantify emissions reductions for the CAIF, a determination must be made of whether the emission reductions can be directly measured or whether they must be calculated. For example, a particular manufacturing facility might have a discharge that can be monitored for emission rates. However, if street paving is used as a means to reduce particulate emissions, the rates of reduction may need to be calculated rather than measured.

For entities receiving money from the CAIF to reduce emissions, a CAIF Fund Recipient Application Form – Part 2 must be completed. (See Appendix 4.) This form contains more information regarding the current emissions and anticipated emission reductions.

This form may be filled out by the entity wishing to receive the CAIF funding or assistance in completing the form may be provided by PROFEPA in Juárez or TCEQ in Texas, or NMED in New Mexico.

It is quite possible that entities that are wishing to receive money from the CAIF have not been monitoring their emissions. If this is the case, and the emissions monitoring will be a major expense for the entity, the CAIF may choose to pay for the emission monitoring or the emission calculation.

7.3 Enforceable

In general, emission reductions and other required actions are enforceable if:

- They are independently verifiable.
- Program violations are defined.
- Those liable can be identified
- Regulatory agencies maintain the ability to apply penalties and secure appropriate corrective action where applicable.
- Citizens have access to all the emissions-related information obtained from the source. (This access will be through the CAIF Project Team.)
- Citizens can file suits against sources for violations.
- They are practicably enforceable.
- Regulatory agencies and the public can independently verify a source's compliance.

As stated in the previous section, it is quite possible that entities receiving funds have not been regulated or monitored prior to their involvement with the CAIF. This situation and the fact that the program is bi-national and multi-state make it difficult to deal with the enforcement component of the CAIF. The CAIF proposes to provide these elements in the following manner. For sources in Texas or New Mexico, the applicable regulatory agency will provide the enforcement. In the case of sources in Mexico, the CAIF will provide funding for a full-time or part-time position (depending on need) for a PROFEPA employee to provide monitoring data and to provide the enforceability component. This position will be paid for by NAD Bank through the distribution of CAIF funds. The position will remain funded as long as the appropriate data are collected and enforcement duties are conducted. NAD Bank will provide this data to the CAIF Project Team.

In terms of enforceability, there are two components: the first is that the project was completed as originally proposed and to the specifications required and the second is that the project is being operated as designed/proposed to maintain the emissions reductions. In the first case, the main enforcement tool that the CAIF has is to structure the contract such that the entity only gets paid as the project is completed. This procedure is similar to the types of activities all funding agencies, including NAD Bank, use to ensure that the projects they have paid for are actually built. If withholding funding does not result in action on the part of the fund recipient, then the fund can use the money that should have gone to this entity to pay for other emission reductions elsewhere.

In the second case, there are two main options. If the CAIF is providing annual funding for operation and maintenance expenses, the CAIF can discontinue these payments as a means of forcing the entity into compliance. The second option is to enact the agreed upon penalty for non-compliance as included in the initial contract with the entity, as previously described in Section 5.2.

7.3.1 PROFEPA Duties

If NAD Bank uses the CAIF monies to pay for a position within PROFEPA (either full or part time), certain duties and obligations would be required in order to maintain the funding for this position. Those duties are listed below.

- Assist with CAIF Recipient Applications (Part 1 or Part 2) – The PROFEPA employee can provide technical assistance to entities that wish to submit applications to the CAIF if so requested by the entity or by the CAIF Project Team. This assistance will include development of baseline monitoring data and calculation of potential emission reductions.

- Provide Monitoring Data – The CAIF Project Team will determine the schedule for monitoring data for each project. The PROFEPA employee will provide monitoring data on each facility under the CAIF program on the schedule determined by the Project Team. The data will be in the format required by the Project Team. Failure to provide data for two consecutive monitoring periods will result in termination of payment from the CAIF.

- Provide Enforcement – If required, the PROFEPA employee will take enforcement actions against the entity not meeting its emission reduction requirements, as defined by the limits of the contract between the CAIF and the entity or as allowed to by PROFEPA regulations.

7.4 Permanent

The emission reductions that the fund achieves will be considered permanent if the CAIF is able to ensure that they occur over the time defined in the SIP for as long as they are required by the SIP.

8.0 Costs Per Ton Threshold

The cost per ton threshold value establishes the amount that a source must pay into the CAIF on a per ton basis in lieu of compliance. This amount does not impact payments into the fund that are not being made in lieu of compliance. If the cost per ton for compliance for a source exceeds the threshold value, the source may wish to pay into the CAIF. If not, the source will comply with the regulations. Payments are made into the fund on an annual basis for as long as the emissions are counted in the plans for attainment or maintenance.

8.1 Setting the Cost Per Ton Threshold Value

As an initial starting point, the guidance value of $10,000 per ton is a good benchmark to indicate the general range of the threshold value. This value comes from former President Clinton's implementation directive of July 16, 1997, which states that, "Consistent with the States' ultimate responsibility . . ., the EPA will encourage the States to design strategies for attaining the PM and ozone standards that focus on getting low cost reductions and limiting the cost of control to under $10,000 per ton for all sources." The fund may set a higher or lower cost, but the $10,000 can serve as a starting point.

The CAIF Policy Board and the CAIF Project Team will work together to select a method of selecting and setting a cost per ton threshold value. Possible options include:

- Selection of a percent overall reduction through direct compliance that is desired. For example, the CAIF board may decide that it wants 90% of the reductions in emissions to come from direct compliance and 10% to come from the CAIF. A threshold value that achieves this percentage could be set.
- Selection of a value based on average cost of compliance multiplied by a factor. The factor could be 1.5 or 1.6 or 1.75, whatever the Board believes is reasonable.

The CAIF can set one value that covers all payments into the fund or it can set multiple values based on pollutant, source type, or both.

As an example, a similar program in the Houston area requires the payment of $75,000 per ton to cover 5 years, which equates to $15,000 per ton per year. There are other programs in Texas that relate to the installation of control technologies that have equated to between $10,000 and $20,000 per ton per year.

The Policy Board and Project Team will discuss all of the available information regarding setting the threshold value, such as compliance costs, use of other values for various programs in the area, use of values for similar programs elsewhere in the country, and any other pertinent or relevant resources. This group will select an initial value and hold a public participation process (meetings or input sessions) to gain public input on the value and the process that was used to select it.

In addition to the selection of the initial value, the group will also have to develop a methodology for increasing the value on an annual basis. This methodology could include an inflation factor for the El Paso/ Juárez / Doña Ana County area or other quantifiable factors that would cause the threshold value to increase over time. This process for increasing the value over time would also need to be discussed at the public meetings.

8.2 Analysis of the Effect of the Cost Per Ton Threshold

Once a value is set, the CAIF Project Team and Policy Board must conduct an analysis of the effects of setting the particular cost per ton value or values. The analysis must:

- Identify sources that might participate in the CAIF and the projected mass emissions that will result if the sources participate in lieu of direct compliance.
- Identify potential recipients for the CAIF monies that could provide compensating emission reductions.

Using this information, the analysis should demonstrate that the CAIF does not interfere with attainment, maintenance, or progress in air quality.

8.3 Reporting Requirements

The threshold value, along with an explanation of how it was determined, and the method by which it will be increased or decreased, must be included with the state's implementation plan (SIP). In addition, the state must also submit the analysis showing that the CAIF will not interfere with attainment, maintenance or progress and showing the sources that may pay into the fund and those that may receive the funds. In this particular CAIF, the SIP will be the El Paso SIP as prepared by TCEQ. The state must publish any subsequent threshold values in an official state record or register.

8.4 Annual Review of Cost Per Ton Threshold

The Board must review the cost per ton threshold value on an annual basis. Adjustments may be made to raise or lower the threshold based on the formula selected at the time the initial threshold value was selected. This procedure will be the only way the threshold value can be changed without a change in the SIP being required. If the formula is used to increase or decrease the value, the value may be published in the Texas Register or similar publication as discussed above. However, if the threshold value is changed using some process other than that approved of in the SIP, a SIP revision will be required.

9.0 Annual Accounting and Reconciliation

The operation of the CAIF must be reviewed on an annual basis. This evaluation includes:

- An accounting and evaluation of all aspects of the fund's operation.
- A review of the cost per ton threshold and an explanation of any adjustments made to the threshold value.
- A reconciliation process that ensures continuous progress is made toward attainment.
- A review of whether or not the surplus evaluation has changed (may occur if regulations in the U.S. or Mexico change).

During the review of the fund's operation, a determination will be made if the fund has met all of its emission reduction obligations. If there is a shortfall identified (i.e., the amount of required emission reductions is greater than what was actually achieved) the CAIF will undergo a reconciliation process to obtain the additional needed reductions. This process may involve a number of different approaches, including obtaining additional reductions from other sources, reviewing the actual participation and actions of sources that agreed to reduce emissions, or other steps. If there are any identified problems with the shortfall, such as a disproportionate impact to a low-income or minority community, the situation will be rectified as discussed above.

10.0 Environmental Benefit of the CAIF

The CAIF will demonstrate compliance with the environmental benefit provisions by demonstrating a 10% greater reduction in emissions than would have occurred with direct compliance.

11.0 Source Liability/Risk

The source must meet all of its emission limits as modified through CAIF participation. The emissions limit would be the total emissions minus the emission reduction as a result of participation in the CAIF.

The source does not completely transfer its liability to meet permit limits to the CAIF. The CAIF has the obligation to find the offsetting emissions and the ten percent greater emissions, but if the fund fails to do so, the ultimate liability will fall back on the source. Therefore, participation in this program does result in some risk for a source. The trade-off for the risk is reduced compliance cost.

To minimize the liability and risk to a participating source, the CAIF will seek to obtain additional emission reductions beyond those specifically required to meet compliance. This activity will provide a margin of safety in case other entities do not meet their reduction obligations. In addition, the CAIF suspension mechanism (discussed below) allows sources to pay into the fund for an additional year after suspension in order for the fund to have time to try to obtain reductions and to allow time for the source to comply in other ways if the fund cannot meet its obligations. This time allowance means that companies will at least have two years at the reduced cost even if they ultimately have to comply.

12.0 Hazardous Air Pollutants

This provision is only used if payments into the fund in lieu of compliance impact VOC emissions. If the fund impacts VOC emissions, the fund must take into account the provisions of Section 16.2 of U.S. EPA's guidance document, "Improving Air Quality with Economic Incentive Programs."

13.0 Suspension of CAIF

The CAIF will automatically suspend source payments into the fund if the fund does not achieve compensating emission reductions within a specified time period (discussed below.) The determination of the need to suspend payments will be made jointly by the regulatory agency and the CAIF Project Team. The process involved in suspending the CAIF is discussed below.

- The actual emission increases (the amount above the applicable regulatory limits) from sources paying into the fund are tracked on a relevant control season basis. Reductions outside control season cannot be used to offset increases within a control season.
- The emission increases are tracked for each relevant control season, and on a rolling basis. The CAIF will be tracking at least two separate control seasons of emission increases and reductions.
- Emission increases must be matched by equivalent emission reductions by the end of the following control season. For example, if sources paying into the fund had actual emission increases of 500 tons during the 2002 control season, the CAIF must demonstrate that 500 tons of actual reductions (not commitments or promises) by the end of the 2003 control season. For the purposes of this automatic suspension provision, the suspension is triggered by the amount of emission increases, not the total reduction obligation. (The CAIF requires a minimum of 10% additional reduction, which in the example above would be 550 tons total; but for the purposes of the suspension provision, the fund only needs to demonstrate 500 ton reduction.)
- Surplus emissions reductions (i.e., the amount by which emission reductions exceed emission increases) from one control season can be carried over into the next control season.
- If the CAIF is suspended, sources paying into the fund will have one additional year, from the date of suspension, to continue payments in lieu of compliance. The CAIF will then have this year to try to meet all requirements. If the CAIF does not meet all requirements by the end of the year, sources will no longer be permitted to pay into the fund and will have to comply with all CAA requirements.

14.0 Federal Land Manager Notice

If any source is permitted to pay into the fund in lieu of compliance that is in or within 100 km of a Class I area, the CAIF must notify the Federal Land Manager. The Federal Land Manager is defined as the Secretary of the department with authority over the Federal Class I area (or the Secretary's designee.) This notification will be made 30 days in advance of when the source begins payments into the CAIF in lieu of compliance.

15.0 Interaction with Other Programs

The CAIF is not intended to meet transportation conformity requirements.

16.0 Restriction on the Use of AELs

Because the CAIF involves sources paying into the fund so that less costly reductions can be purchased elsewhere, the use of Alternative Emissions Limits (AELs) will be prohibited, unless a demonstration can be made that shows emissions reductions can not be purchased elsewhere.

Appendix 1
Example of Procedure for a Transaction of the Fund In Lieu of Compliance

Example of Procedure for a Transaction of the Fund in Lieu of Compliance

Step 1: Regulation Prompts Compliance

The initial trigger for this type of transaction is that a regulation, either current or upcoming, will require a company to comply with an air standard. The company examines the cost of compliance and determines that it is a considerable expense. The company seeks alternative means of compliance.

Step 2: Investigation of the Economics of the CAIF

Given that the CAIF has an established threshold for compliance (i.e., a cap on the price per ton for compliance), a company can conduct an economic analysis to determine if it would be more economical to pay into the CAIF over the long term or to simply install the necessary equipment and meet compliance. An example of three different scenarios of this type of investigation is shown below.

Example 1 - Should the Company pay into the CAIF?

Assumptions

1. Company is required to reduce an additional 4 tons of pollutant based on permitting or regulatory requirements.
2. Financing of at the equipment will be necessary; bank financing at 6% interest is assumed
3. Most of the cost is up front purchase cost. O&M is relatively low. For the purposes of this analysis it is assumed to be 5% of the purchase price
4. Question is: Is it cheaper to install the equipment or use the CAIF
5. Equipment is assumed to have a useful life of 20 years.

Calculation

Purchase price of removal equipment: $2 Million	$2,000,000
Using a life of 20 years, at 6%, the equivalent uniform annual cost is	$174,400
At 10 percent of the actual installation cost, the annual O&M is	$100,000
Total cost/year	$274,400
Cost/ton	$68,600
Cost/ton with CAIF using 10,000/year/ton	$40,000
Savings if CAIF is used	**$28,600 Per year**

Example 2 - Should the Company pay into the CAIF?

Assumptions

1. Company is required to reduce an additional 8 tons of pollutant based on permitting or regulatory requirements.
2. Financing of at the equipment will be necessary; bank financing at 6% interest is assumed
3. Most of the cost is up front purchase cost. O&M is relatively low. For the purposes of this analysis it is assumed to be 5% of the purchase price
4. Question is: Is it cheaper to install the equipment or use the CAIF
5. Equipment is assumed to have a useful life of 20 years.

Calculation

Purchase price of removal equipment	$500,000
Using a life of 20 years, at 6%, the equivalent uniform annual cost is	$43,600
At 10 percent of the actual installation cost, the annual O&M is	$25,000
Total cost/year	$68,600
Cost/ton	$8,575
Cost/ton with CAIF using 10,000/year/ton	$80,000

No Savings using CAIF

Example 3 – Should the Company pay into the CAIF?

Assumptions

1. Company is required to reduce an additional 6 tons of pollutant based on permitting or regulatory requirements.
2. Financing of at the equipment will be necessary; bank financing at 6% interest is assumed
3. Most of the cost is up front purchase cost. O&M is relatively low. For the purposes of this analysis it is assumed to be 5% of the purchase price
4. Question is: Is it cheaper to install the equipment or use the CAIF
5. Equipment is assumed to have a useful life of 20 years.

Calculation

Purchase price of removal equipment: $500,000 Million

Using a life of 20 years, at 6%, the equivalent uniform annual cost is	$43,600
At 10 percent of the actual installation cost, the annual O&M is	$25,000
Total cost/year	$68,600
Cost/ton	$11,433
Cost/ton with CAIF using 10,000/year/ton	$60,000
Savings if CAIF is used	**$8,600 Per year**

The examples from the previous page show a case where a company may want to use the fund (Example 1), one where the company would not want to use the fund (Example 2) and one where it was unclear (Example 3).

Based on the economic investigation, if the company determined that the CAIF was advantageous to the company, such as in Example 1, or advantageous enough, such as Example 3, it would proceed to Step 3. If not, the company would follow the route of direct compliance.

Step 3: Application to CAIF

If the company wished to participate in the CAIF, it would complete an application and submit it to the Fund.

Step 4: Review by CAIF Project Team

The application would be reviewed by the CAIF project team. The first area of review would be the location of the entity. If the applicant were an entity located in Texas, the Texas Commission on Environmental Quality (TCEQ) would take the regulatory lead on the application. If the entity were located in New Mexico, the New Mexico Environment Department (NMED) would take the lead.

The first determination would be made by the appropriate regulatory agency to verify that the company was eligible to use the CAIF for compliance purposes. If it were eligible, the review would proceed. If not, the application would be denied with an explanation and returned to the company.

If the applicant were deemed eligible for the CAIF by TCEQ or NMED, the CAIF Project Team would make a determination regarding where emission reductions could be obtained to offset the emissions. The CAIF would review the CAIF Recipient Applications on file with NAD Bank to determine which ones would be the best source of cheaper emission reductions.

Step 5: Development of Recipient Project

Once the proposed project was identified based on the Part 1 Application, the entity would be asked to develop a Part 2 Application that would provide more detailed information about emissions reductions and costs. This application could be prepared by the entity or with assistance from PROFEPA or another member of the CAIF Project Team. The result of this step would be a completed Part 2 Application. This application would also indicate that the emissions were indeed surplus.

Step 6: Payment into the Fund

Once the relevant regulatory agency agreed that the source could pay into the CAIF in lieu of compliance, it would receive the necessary permit modification or certification

that it was allowed to do so. At that point, the source could enter into a contract with NAD Bank, as fund manager, to begin payments. This step can be done concurrently with the development of the recipient project in Step 5.

Once the source paid into the fund, NAD Bank would provide notice to the CAIF Project Team that payment had been received.

Step 7: Obtaining Emission Reductions

NAD Bank would enter into a contract with the recipient entity to finance construction of facilities, purchasing equipment, technical assistance or whatever other programmatic or project related costs were deemed required to produce the emission reductions. The contract would specify the terms of payment, the project requirements, and the course of action if the entity failed to meet its obligations. The recipient would then undergo the construction and complete the project.

Step 8: Monitoring and Verifying Reductions

If the recipient were a Mexican facility, PROFEPA would conduct monitoring and verification operations to determine if the facility was meeting its obligations. This information would be supplied to NAD Bank who would provide it to the CAIF Project Team. If the facility were in Texas, TCEQ would fulfill this role; if it were in New Mexico, NMED would provide this information.

Step 9: Review of the Fund's Operation

At the end of the year, the CAIF would be reviewed to determine if it met all of its obligations in terms of emission reductions.

Appendix 2
Preliminary Application for Use of the Fund In Lieu of Compliance

Preliminary Application for Use of the Fund In Lieu of Compliance

Name of Facility:

Function of Facility:

The Clean Air Investment Fund allows industrial facilities to forgo environmental compliance through payment on a per ton basis into the Fund. If your facility is submitting this form, it is assumed that your facility faces high compliance costs due to federal, state, or local environmental regulations for air emissions.

1. Are your facility air emission permits current? If no, please explain.

2. Has your facility added new processes or expanded existing processes since submitting its permit application? If yes, please describe.

3. Has your facility conducted performance testing which documents compliance or non-compliance with emission rates as listed in its air emission permit? If not, please explain.

4. Are air emission inventory reports completed accurately and submitted in a timely manner? If not, please explain.

5. Are pollution control devices used to either reduce emissions or recover valuable by-product? If not, please explain.

6. For which emissions is your facility currently not in compliance?

FACILITY EMISSIONS		
Pollutant	**Pollutant Permit Thresholds**	**Actual Facility Emissions**
Volatile Organic Compounds (VOC)	tons/year	tons/year
Carbon Monoxide (CO)	tons/year	tons/year
Nitrogen Oxides (NOx)	tons/year	tons/year
Sulfur Dioxide (SO2)	tons/year	tons/year
Particulate Matter less than 10 microns (PM10)	tons/year	tons/year
Combined Hazardous Air Pollutants (HAPs	tons/year	tons/year
One HAP	tons/year	tons/year
Lead	tons/year	tons/year

7. If an increase in emissions is expected in the future, for which emissions will your facility not be in compliance?

FACILITY EMISSIONS		
Pollutant	**Pollutant Permit Thresholds**	**Actual Facility Emissions**
Volatile Organic Compounds (VOC)	tons/year	tons/year
Carbon Monoxide (CO)	tons/year	tons/year
Nitrogen Oxides (NOx)	tons/year	tons/year
Sulfur Dioxide (SO2)	tons/year	tons/year
Particulate Matter less than 10 microns (PM10)	tons/year	tons/year
Combined Hazardous Air Pollutants (HAPs	tons/year	tons/year
One HAP	tons/year	tons/year
Lead	tons/year	tons/year

8. For which emissions is your facility seeking relief from regulatory compliance?

9. For what reason(s) is your facility unable to meet current environmental compliance standards now and/or in the future?

10. For what period of time do you expect your facility to be unable to meet current environmental compliance standards?

Based on the following cost/ton table, your annual payment to the CAIF will be:

Pollutant	**Amount exceeding Threshold**	**Cost/Ton**	**Annual CAIF Payment**
Volatile Organic Compounds (VOC)	tons/year	**$0.00**	**$0.00**
Carbon Monoxide (CO)	tons/year	**$0.00**	**$0.00**
Nitrogen Oxides (NOx)	tons/year	**$0.00**	**$0.00**
Sulfur Dioxide (SO2)	tons/year	**$0.00**	**$0.00**
Particulate Matter less than 10 microns (PM10)	Tons/year	**$0.00**	**$0.00**
Combined Hazardous Air Pollutants (HAPs	Tons/year		**$0.00**
One HAP	Tons/year	**$0.00**	**$0.00**
Lead	Tons/year	**$0.00**	**$0.00**
TOTAL			**$0.00**

Appendix 3
CAIF Recipient Application Form – Part 1

CAIF Recipient Application – Part 1

Applicant Information

Facility Name: _____

Address: _____

_____

Contact Name:_____

Contact Address if different from above:
_____

_____

Phone: _____

Fax: _____

e-mail: _____

Proposed Project (provide brief project description stating the type of project proposed)
_____
_____
_____
_____
_____
_____
_____

Is Your Facility Currently Required to Meet Air Permit Standards in the U.S. or Mexico?
_____
_____
_____
_____

Do you know what type of emissions your project would reduce?
_____
_____

If so, do you know the estimated quantity of emissions reduced? _____

_____

_____

_____

Indicate how soon you would be able to start your project if funded (e.g., immediately, within 6 months, within a year). This estimate is NOT the amount of time it would take to complete the project, but rather when you could start planning, construction, design, or other required elements.

_____

_____

Schedule (Provide an estimate of how long it would take to complete this proposed project. For example, if you will require time for planning or design estimate the length of time required. If you need to make process modifications as part of the process estimate that time, etc.)

_____

_____

_____

_____

_____

Estimate the initial cost of your project. This estimate can be on a per facility basis if multiple facilities are contemplated, on a per mile basis if paving is considered, or in other units applicable to your project.

_____

_____

_____

Describe the ongoing operation and maintenance (O&M) you anticipate and the estimated cost of the ongoing O&M. _____

_____

_____

_____

_____

_____

Do you anticipate needing CAIF money for the ongoing O&M or will you use your own or alternative funding source for these costs?_____

_____

_____

_____

Have you ever applied to BECC or NAD Bank for funding for any other project? (Please describe.)

_____
_____
_____
_____
_____

Is there an anticipated length of your project (i.e., the time between installation/construction and no longer using the installed facilities)?

_____
_____
_____

Appendix 4
CAIF Recipient Application Form– Part 2

CAIF Recipient Application – Part 2

Please describe the facility or project.

Name of Facility/Project:

Description of Facility/Project:

Quantify the potential impact of CAIF funding in terms of emissions.

1. Have air emissions been identified, measured, and documented?
   Yes _____ No_____

If so, please attach inventory?

2. For fugitive emissions, does the business have a current site map or blueprint identifying sources?
   Yes _____ No _____

If so, please attach map or blueprint.

3. If the business has smoke stacks have they been inspected and have emissions been identified, measured and documented?
   Yes _____ No _____

If so, please attach inventory.

4. Are waste materials burned on site for energy or disposal? Have emissions been identified, measured and documented?
   Yes _____ No _____

If so, please attach inventory.

5. Are there any facility expansions or modifications planned that may be an additional source of air emissions?
   Yes _____ No _____

Please describe.

6. Does the business keep records of its raw materials so that data can be generated on potential fugitive emissions?
   Yes _____ No _____

If so, please attach data.

7. Has the business ever receive complaints from neighbors about odors or emissions from the facility?
   Yes _____ No _____

If so, please describe.

8. Has the business implemented any program or project designed to reduce the generation or release of air emissions?
   Yes _____ No _____

If so, please describe.

9. Does the business use any of the following materials or processes?

combustion of fuel oil, coal, or waste _____
chemical processing _____
cleaning with solvents _____
painting or coatings _____
trash incineration _____
storage of organic liquids _____
dry cleaning _____
printing and graphic arts _____
wood finishings _____
chemical wood pulping _____
use of adhesives _____
wood furniture manufacturing _____
electroplating _____