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GDF SUEZ

Appendix 7.

EMS Targets and Objectives, and their Status as well as Achieved Targets

Reference: HCF Procedure A-07

This will be the status of the Targets and Objectives within 30 days of the revision of this manual. Updates of current Objectives are made on the Copy Room Bulletin Board Monthly.

SETTING AND TRACKING OF ENVIRONMENTAL OBJECTIVES AND TARGETS

1) **Purpose:**
   a) The purpose of this procedure is to ensure that the organization establishes and maintains documented environmental objectives and targets.

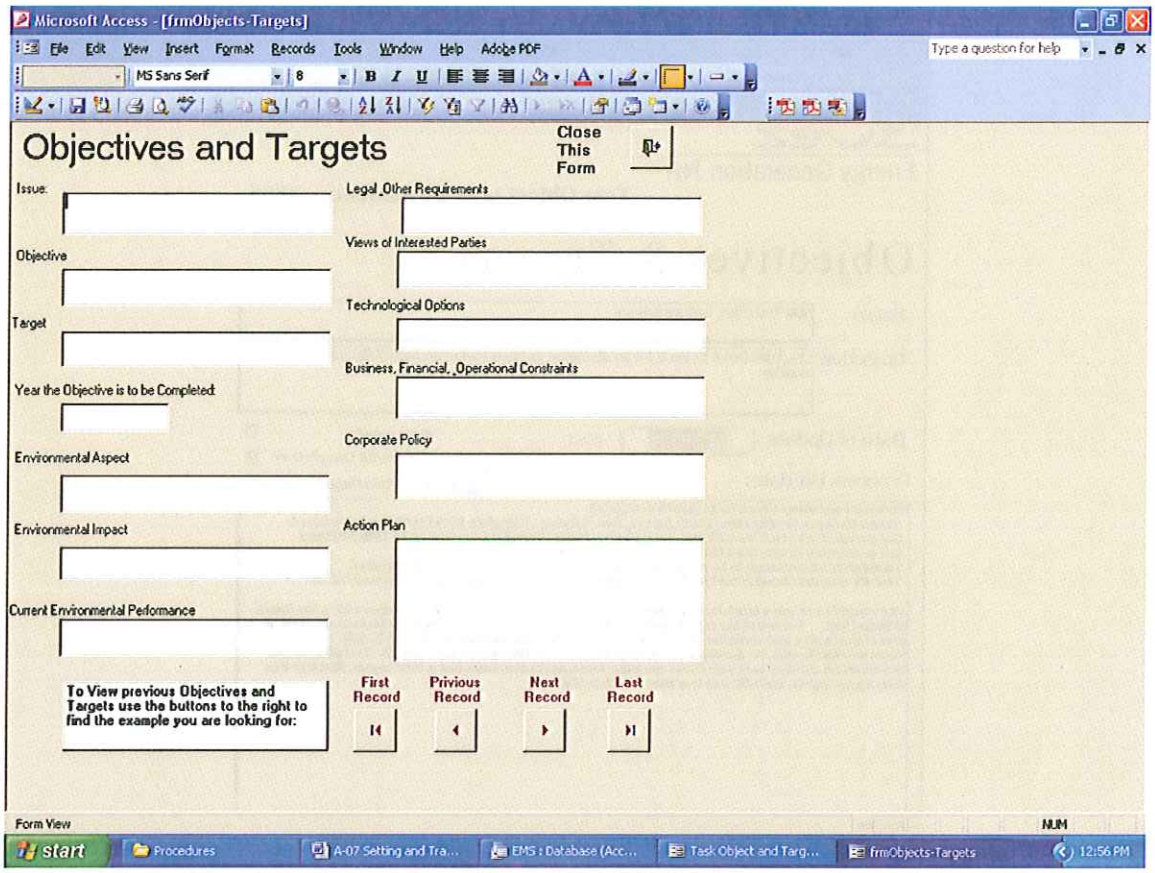
2) **Scope:**
   a) This procedure applies to environmental objectives and targets set at all relevant levels within the organization.

3) **Definitions:**
   a) Reference; ISO 14001:2004 sections 3.9 and 3.12
   b) **Environmental objective**- Overall environmental goal, consistent with the environmental policy (ISO 14001:2004 section 3.11), that and organization (ISO 14001:2004 section 3.16) sets itself to achieve.
   c) **Environmental target**- A detailed performance requirement applicable to the organization (ISO 14001:2004 section 3.16) or parts thereof; that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.

4) **General:**
   a) The organization establishes environmental objectives and targets in order to implement the environmental policies. Objectives and targets also provide a means for the organization to measure the effectiveness of its environmental efforts and improve the performance of the environmental management system. In establishing environmental objectives, the organization considers:
   b) applicable laws and regulations (and requirements of other programs,);
   c) environmental aspects of the organization's activities and products;
   d) technological, financial, operational, and other organizational requirements; and,
   e) the views of employees and other interested parties.
   f) they should come from significant impacts, but any environmental improvement is welcome
      i) Based on the organization's environmental objectives, targets are established for different functions within the organization and for different areas of the plant. For example, the organization may establish an environmental objective to "reduce waste generation by 10% per year". Based on this objective, different areas of the plant might set targets for reducing individual waste streams in order to ensure that the organization's objective was achieved. An organization-wide environmental objective might also be translated into individual projects (such as changes in production processes, materials or pollution control equipment) in different plant areas.

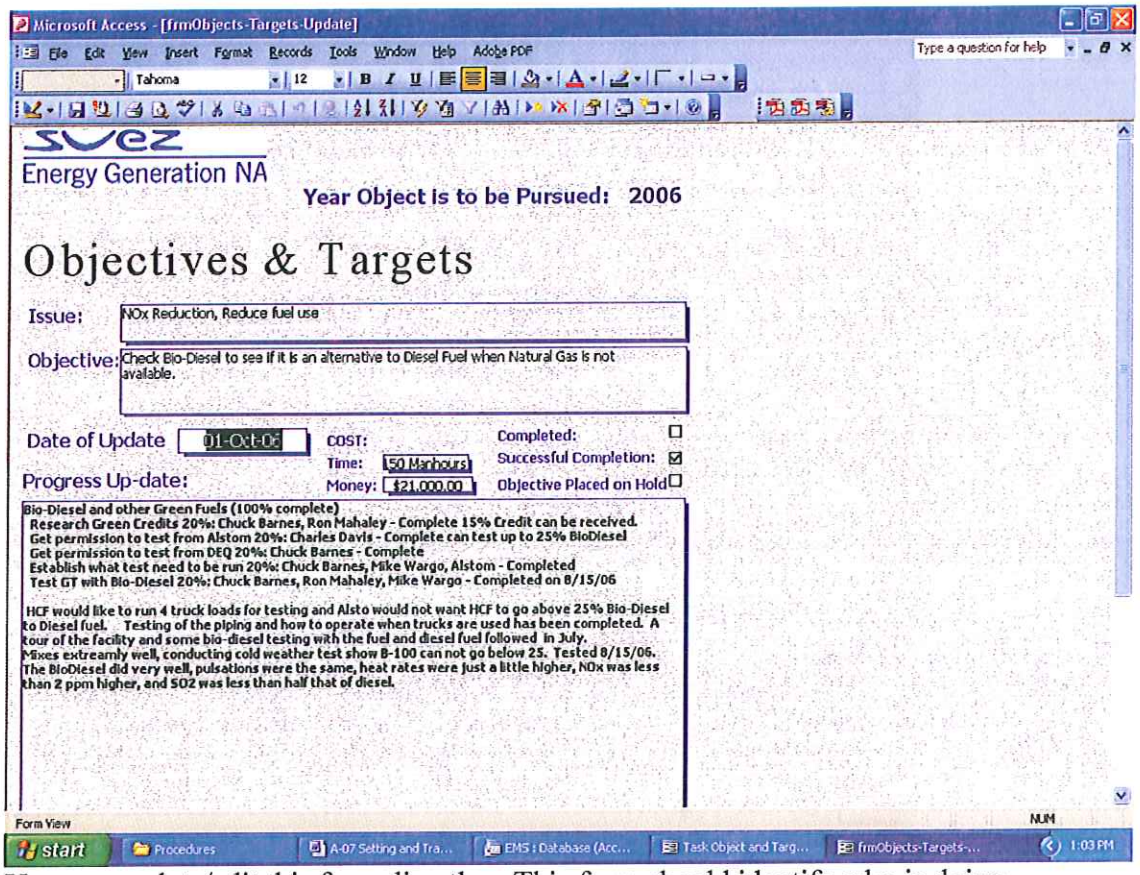
5) **Procedure:**
   a) The organization's top management is responsible for establishing environmental objectives on an annual basis. To initiate the process, the Plant Manager holds a meeting of all staff members to discuss the development of environmental objectives. This is put into the Business Plan. This can be done during the Management Review.
   b) Objectives are action and prevention oriented and are intended to result in meaningful improvements in the organization's environmental performance.
   c) Each plant area is responsible for providing input from his/her own function. The organization's responsible person (TSS) is responsible for providing input on applicable laws and regulations, significant site environmental impacts, and the views of interested parties. (These inputs are obtained from the separate analyses).
   d) As a starting point, the organization's management evaluates its performance against environmental objectives for the current year. As part of this effort, management examines the results of its environmental performance evaluations.
   e) Preliminary environmental objectives are developed for further discussion and evaluation. Each supervisor is responsible for evaluating the potential impacts within his / her functional or shop area (if any) of the proposed environmental objectives. The organization's environmental supervisor reviews proposed objectives to ensure consistency with the overall environmental policy.
   f) Environmental objectives are finalized, based on review comments from site Environmental Committee and employees.
   g) The Responsible Person (TSS) is responsible for communicating objectives and targets to all parts of the organization.
   h) Progress towards the objectives and targets is reviewed on a regular basis at
   i) Environmental Committee meetings and updates posted as changes are made or at least reviewed monthly. The progress is also communicated to plant employees via bulletin boards and other similar means.
   j) At the end of each calendar year, the organization's management reviews its performance with regard to achieving the objectives and targets. This information is used as input to setting objectives and targets for the succeeding year. It must be noted that some targets will not be fully achieved within one year's time; these may carry over for a number of years as long as positive progress is being shown. Safety will also be integrated into the Objectives and Targets.

6) **How to Write up Objectives and Targets:**
   a) This is an example of how to write up, and keep up the Objectives and Targets. These will normally be 3 to 6 objectives and targets, including the Safety items.
   b) Open the EMS Data Base; from the main switchboard select the second button from the top to take you to the Objectives and Targets. Then select the fourth button from the bottom to add an objective.
   c) You should see this screen:



d)

e) Fill in the data, and you can use the buttons at the bottom to look at other examples of previous Objectives. Closing the form, go to the third button from the bottom to look at and see what needs to be edited the Objective. To edit close out the form and go back to the fourth button from the bottom and use the buttons at the bottom of the form above to edit the Objective. The second button from the bottom will allow you to enter updates;



f)

g) You can update/edit this form directly. This form should identify who is doing what and an overall completion percentage. List names of who is working on what; try to indicate if there is a progression. That is if one step has to be accomplished before one can go on to the next step. Both of these write up are to be posted. The screen/form above should be updated when something changes or monthly reviewed. This does not mean that it had to be updated every month if there is no progress.

7) **Roles and Responsibilities**
   a) This is the responsibility of the Site Environmental Representative or their designee.

8) **Distribution:**
   a) In the computer under Z:\Public\EMS\Procedures\A-07 Setting and Tracking of Environmental Objects and Targets.doc
   b) In the Procedure books in the control room
   c) Tab 7 of the EMS Manual

9) **Attachments/Examples**

a) On the environmental bulletin board in the mail room will be copies of the Targets and Objectives for the year, and the progress made.

10) **History of Review/Revision**

Revision Number	Date of Revision or Review	Person Reviewing or Revision and Remarks
01	10/5/06	Chuck Barnes based on ISO Audit
Review	3/4/07	Chuck Barnes
Review	2/29/08	Chuck Barnes
Review	8/15/08	Taylor Dunford
Review	7/16/09	Chuck Barnes
Review	9/7/10	Chuck Barnes
Review /update	2/25/2011	Chuck Barnes

As of 2010 Procedure and Checklist Reviews will be conducted every other year; the even numbered procedures/checklist on the even years and the others on the odd years. Updates and Revisions should be done soon after the change has been made.

Objectives and Targets

Hopewell Cogeneration Facility

GDF SUEZ

Year Objective is to be evaluated: 2010

Issue: ***Water Conservation, Reduce Noise***

Target	Connect all NOx Skid blowdowns back to the condensate system. To reduce noise associated with the NOx skid blowdown system.
Objective	To put NOx Skid Blowdown back into the condensate system inorder to save water and heat.
Environmental/Safety Aspect	Reduce Noise and conserve natural resources
Environmental/Safety Impact	Reduce water use
Current Environmental Performance	See performance parameters under water conservation.
Legal Other Requirements	None
Views of Interested Parties	GDF Suez wants all plants to have a water management plan and conserve water.
Technological Options	
Business, Financial, Operational Constraints	Cost of the piping
Corporate Policy	None
Action Plan	1. Get baseline noise readings. Use performance numbers to see if there is a reduction in water use. 2. Connect all blowdowns to the atmosphieric drain tank. 3 Check noise readings. And check water performance at the end of the year.

Objectives and Targets

Hopewell Cogeneration Facility

GDF SUEZ

Year Objective is to be evaluated: 2011

Issue: ***Water Conservation***

Target	Make it safer, save on chemicals, save on water, and reduce cost of operations
Objective	Conduct a study to see if it is cost effect to put in an Ozone System into the Cooling Tower.
Environmental/Safety Aspect	Reduction of water by 2% and 95% of chemicals.
Environmental/Safety Impact	Less water taken from the Environment, less chemicals in the Environment, and an overall cost saving.
Current Environmental Performance	Average usage 112,838,898 gallons per year. The average is 6.1 million gallons per % capicity.
Legal Other Requirements	None, any city water restrections do not apply to the industrial lplants.
Views of Interested Parties	Safer operations for plant personnel. HCF and other Suez Plants with the same type set-up
Technological Options	
Business, Financial, Operational Constraints	Initial cost and operating cost
Corporate Policy	Reduce Impact on the Environment, and reduce cost of operations. Added value in that the operation is safer.
Action Plan	1. Get a cost estiment for the system. 2. Compare to the actual cost HCF is spending on the present system. 3. Compare the benefits. 4. Working out the financing if the plan will be cost effective, and set up in the budget of 2012 if not before.

Objectives and Targets

Hopewell Cogeneration Facility

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Year Objective is to be evaluated: 2011

Issue: ***Water Conservation***

Target	Reduce Water use in the cooling tower by 2% or better.
Objective	Reduce Water use by sending the the Demin rinse water to the cooling tower.
Environmental/Safety Aspect	Reduction of water use by 2%
Environmental/Safety Impact	Less water taken from the environment
Current Environmental Performance	Average usage 112,838,898 gallons per year. The average is 6.1 million gallons per % capicity.
Legal Other Requirements	None, any city water restrections do not apply to the industrial lplants.
Views of Interested Parties	HCF and other Suez Plants with the same type set-up
Technological Options	
Business, Financial, Operational Constraints	Project being dropped from the budget
Corporate Policy	Reduce Impact on the Environment, and reduce cost of operations.
Action Plan	Lay out piping requirements Setup logic changes Install trouble shoot during a slow period (Spring or Fall) track water use Estimate savings

Objectives and Targets

Hopewell Cogeneration Facility

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Year Objective is to be evaluated: 2011

Issue: ***STOP Program***

Target	To do one Audit /Observation per month and have these audits impact the workplace
Objective	To put the STOP Program into full operation, for 2011 average 2 cards per month. There will be a transision during the year to a more up to date system.
Environmental/Safety Aspect	Covers all Safety Aspects
Environmental/Safety Impact	Reduce close calls, accidents, and provide awareness in most all areas.
Current Environmental Performance	No lost time accidents in 10 years, however, there have been some close calls and two reportable accidents in 2003.
Legal Other Requirements	29 CFR 1910
Views of Interested Parties	Virginia OSHA, Tractebel
Technological Options	N/A
Business, Financial, Operational Constraints	Overall cost of training material, training time and complete buy-in by plant personnel.
Corporate Policy	Achieve on going improvement in plant Safety
Action Plan	1. Do Audits at least once a month 2. Report results to the Maintenance Support Supervisor. Bring up at monthly Safety meetings. Repair items using the 58450 findings. 3. Report to TPI and post to enlist support for the program

Objectives and Targets

Hopewell Cogeneration Facility

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Year Objective is to be evaluated: 2011

Issue: ***CO2 concervation***

Target	To reduce the plants overall CO2 production by 0.5%
Objective	To reduce the plants overall CO2 production
Environmental/Safety Aspect	Reduction of CO2 by using it in the coooling tower to reduce overall production.
Environmental/Safety Impact	Reduction of CO2 and maker it safer and more cost effective than using sulfuric acid to treat the cooling tower.
Current Environmental Performance	Average 4 750 gal totes per year at a cost of about $3,500 per year.
Legal Other Requirements	GHG regulations are not
Views of Interested Parties	Safer operations for plant personnel. HCF and other Suez Plants with the same type set-up
Technological Options	Continue using Sulfuric Acid or find a cheeper acid that can be dispenced automatically
Business, Financial, Operational Constraints	Initial cost and operating cost
Corporate Policy	Reduce Impact on the Environment
Action Plan	1. Get a cost estiment for the system. 2. Compare to the actual cost HCF is spending on the present system. 3. Compare the benefits. 4. Working out the financing if the plan will be cost effective, and set up in the budget of 2012 if not before.

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Year Object is to be Pursued: 2010

Issue: Water Conservation, Reduce Noise

Objective: To put NOx Skid Blowdown back into the condensate system inorder to save water and heat.

Date of Update 01-Feb-11

COST:

Time:

Money: $0.00

Completed: ☐

Successful Completion: ☐

Objective Placed on Hold ☐

Progress Up-date:

Get noise level at a startup: 123 DB's The tie-in was not able to be completed during the spring outage, but should be completed during the fall outage.

Success-Failure Remarks: In Progress

The plant was built with no drains being returned. Better Water Management is needed. It is believed that a reduction of 2% water use can be obtained by taking the blowdown back to the atmosphieric drain tank. Presently the blowoff from these skids create a good deal of noise, this will be reduced by the change.

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Year Object is to be Pursued: 2011

Issue: Water Conservation

Objective: Conduct a study to see if it is cost effect to put in an Ozone System into the Cooling Tower.

Date of Update 01-Feb-11

COST:

Time:

Money: $0.00

Completed: ☐

Successful Completion: ☐

Objective Placed on Hold ☐

Progress Up-date:

Bid has been presented to HCF. Cost of the present system is being checked and a time for a presentation by the Ozone company will be in late February or March.

Success-Failure Remarks:

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Year Object is to be Pursued: 2011

Issue: Water Conservation

Objective: Reduce Water use by sending the the Demin rinse water to the cooling tower.

Date of Update 01-Feb-11

COST:

Time:

Money: $0.00

Completed: ☐

Successful Completion: ☐

Objective Placed on Hold ☐

Progress Up-date:

Not Started

Success-Failure Remarks:

Demin Rinse water is very low conductivity and is normally on the acidic side. This will conserve water and reduce the amount of chemicals required to maintain pH.

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Year Object is to be Pursued: 2011

Issue: STOP Program

Objective: To put the STOP Program into full operation, for 2011 average 2 cards per month. There will be a transision during the year to a more up to date system.

Date of Update 01-Feb-11

COST:

Time: 15 Min. Card

Money: $400.00

Completed: ☐

Successful Completion: ☐

Objective Placed on Hold ☐

Progress Up-date:

EMS program has all the forms needed to check the STOP program
Personnel will have to be tracked this year: (should be a minimum of 44 cards per month)

	2008	2009	2010
January:	26 Cards, 12 Employees	82 Cards 21 Employees	54 Cards 19 Employees
February:	87 Cards, 20 Employees	62 Cards 21 Employees	
March:	58 Cards, 17 Employees	67 Cards 21 Employees	
April:	55 Cards. 20 Employees	74 Cards 16 Employees	
May:	56 Cards, 22 Employees	151 Cards 21 Employees	
June:	47 Cards, 19 Employees	13 Cards 8 Employees	
July:	54 Cards, 17 Employees	55 Cards 20 Employees	
August:	67 Cards, 21 Employees	68 Cards 21 Employees	
Sep.	87 Cards, 21 Employees	62 Cards 21 Employees	
October	70 Cards, 21 Employees	169 Cards 21 Employees	
November	57Cards, 20 Employees	54 Cards 20 Employees	
December	67 Cards, 21 Employees	45Cards 19 Employees	

Success-Failure Remarks:

Suez wanted to reduce accidents and improve safety throughtout the company. In additions to the STOP Card HCf will be working on a new system to take the place or at least make STOP more productive.

GDF SUEZ

Year Object is to be Pursued: 2011

Issue: CO2 concervation

Objective: To reduce the plants overall CO2 production

Date of Update 01-Feb-11

COST:

Time:

Money: $0.00

Completed: ☐

Successful Completion: ☐

Objective Placed on Hold ☐

Progress Up-date:

This project is in conjunction with the Ozone treatment.

Success-Failure Remarks: