



GREENHOUSE GAS INVENTORY MANAGEMENT PLAN

v. June 21, 2007

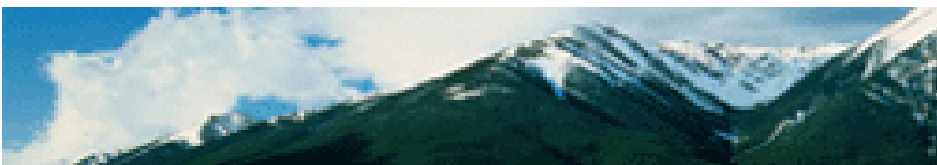


Table of Contents

IMP Revision History	1
Introduction	2
Partner Information	2
Boundary Conditions	3
(5) Organizational Boundaries	3
(6) Facilities List	3
(7-11) Operational Boundaries	5
Emissions Quantification	6
(12) Method	6
(13) Emission Factors	7
Data Management	9
(14 & 15) Activity Data & Data Management	9
(16-17) Normalization Factors	10
(18) Quality Assurance	10
(19) Data Security	11
(20) Integrated Tools - Optional	11
(21) Corporate Reporting Frequency	11
Base Year	12
(22 & 23) Adjustments to Base Year Emissions – Structural & Methodology Changes	12
Management Tools	14
(24) Roles and Responsibilities (EMC procedure 672)	14
(25) Training (EMC Procedure 605)	15
(26) Document Retention and Control Policy (EMC Procedure 611)	15
Auditing & Verification	16
(27) Internal Auditing (EMC Procedure 182)	16
(28) External Auditing (Optional)	17
(29) Management Review (EMC procedure 629)	17
(30) Corrective Action (EMC Procedure 317)	18

List of Tables

Table 1	2006 List of EMC Controlled Facilities.....	3
Table 2	EMC Operational Boundaries.....	5
Table 3	GHG Emission Factors – Direct Combustion.....	7
Table 4	GHG Emission Factors – HFCs.....	8
Table 5	GHG Emission Factors - Indirect	8

Appendices

Appendix A:	EMC Climate Leaders Partnership Agreement
Appendix B:	Annual GHG Inventories
Appendix C:	EPA Annual GHG Inventory Summary and Goal Tracking Form

IMP Revision History

Date	REV	Description of Changes	Originator	Approved By
9/6/05	01	Original Plan	Paul Sauvageau	Kevin Biernacki
7/28/06	02	Per EPA review and agreement: Change to 2005 Base Year; Clarified Organizational Boundaries to recognize in-service Facilities; Updated Facilities List; Provide for Normalization Factors for Facility Square Footage.	Paul Sauvageau	Kevin Biernacki
6/21/07	03	Acquisition of RSA/NH Bedford and Westwood Massachusetts facilities - included in 2005 Base Year inventory. Addition of new facility at 55 Constitution Blvd - came online July 06. Inclusion of Legato Nashua NH facility which meets IMP operational control boundaries - included in 2005 Base Year inventory. Minor adjustments to facility square footages to reflect updated data - changes included in 2005 Base Year inventory. Addition of missing utility accounts at 111 Constitution Blvd (NG) and 239 South St. (elec.) - updated Base Year inventory. Removed Direct NG Emissions from 900 West Park Ave. facility from Base Year inventory - inactive/not occupied - does not meet operational control definition (inadvertently included NG emissions in 2005 Base Year). Minor Base Year adjustments to incorporate jet fuel uplift for domestic flights to reflect first leg of international flights originating in US - Change made to be consistent with Carbon Disclosure Project global GHG emissions reporting. Update 2006 and Base Year inventories with new 2004 eGrid emission factors. Updated contractor references (formerly Rizzo Associates).	Paul Sauvageau	Kevin Biernacki

Introduction

EMC Corporation is the world leader in products, services, and solutions for information storage and its management. As an industry leader that adheres to the highest standards of quality and integrity, EMC is committed to conducting operations in an environmentally responsible manner. Our environmental mission emphasizes a constant focus on providing a clean environment for employees, customers, shareholders, and neighbors worldwide. As articulated in our Environmental Policy, EMC's commitment to the environment goes beyond regulatory compliance by voluntarily adopting programs that benefit the environment. We concentrate on prevention, not reaction. And we communicate our environmental policies and projects to all employees through awareness training and our internal newsletter, EMC.Now. Information about EMC's products and services and environmental policy can be found at www.EMC.com.

Climate Leaders is a voluntary EPA industry-government partnership that seeks to develop long-term (5 to 10 year) comprehensive climate change strategies. In keeping with our environmental policy, EMC has agreed to become a partner in the EPA's Climate Leaders Program and set voluntary reduction goals for greenhouse gas (GHG) emissions. As a Climate Leaders Partner, EMC will conduct a baseline analysis of six (6) greenhouse gases: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆. In addition, EMC will develop a corporate GHG inventory management plan (IMP), set a GHG reduction goal that exceeds business as usual, and annually report GHG inventory data to EPA. EMC also pledges to publicize our participation in Climate Leaders and our accomplishments achieved through the program.

This document represents EMC's GHG Inventory Management Plan and has been prepared with section numbering consistent with EPA's Climate Leaders IMP Checklist. A copy of EMC's Partnership Agreement is provided in the Appendix to this IMP.

Partner Information

- (1) Company Name:** EMC Corporation
- (2) Corporate Address:** 228 South Street, Hopkinton, MA 01748-9103
- (3-4) Inventory Contact:** Kevin F. Biernacki, C.S.P., Director of Global EHS
- Phone:** (508) 293-6556
- Fax:** (508) 435-3324
- Email:** biernacki_kevin@emc.com

Boundary Conditions

(5) Organizational Boundaries

For setting organizational boundaries and for corporate reporting of consolidated GHG emissions, EMC will use the Operational Control Approach. Under this approach, EMC will account for 100% of the GHG emissions from operations over which it has control. Emissions from operations over which EMC has no control will not be included in the IMP. Operational Control means that EMC has the full authority to introduce and implement its operating policies “at the operation.” For leased facilities, Operational Control means that EMC has the ability to track energy use and/or emissions from the lease (i.e., EMC pays the utility bills of a leased facility; or has access to utility bills from the landlord, and the utility usage can be accurately allocated to EMC’s leased space, such as via a separate electric meter.) EMC does not operate any jointly owned facilities.

EMC has several facilities that are considered Construction in Progress (CIP) and which have not been placed in service nor recognized as Fixed Assets by the EMC Real Estate Group. Facilities that are recognized only as CIP are not considered to be under the Operational Control of EMC and, therefore, are not included in GHG accounting. Also, certain facilities that are leased by EMC and have been subleased by EMC to tenants and which EMC does not have control of or responsibility for utility payments are not considered to be under the Operational Control of EMC.

(6) Facilities List

In the USA, EMC owns or otherwise has operational control over leased facilities located in Massachusetts, New Hampshire, North Carolina, Georgia, and California. A list of EMC Facilities included under the Operational Control Approach is presented in Table 1.

Table 1 2006 List of EMC Controlled Facilities

Facility Address	Town	State	Owned / Leased
9 Townsend West	Nashua	NH	Leased
174 Middlesex Tpk	Bedford	MA	Leased
176 Middlesex Tpk	Bedford	MA	Leased
200 Lowder Brook Road	Westwood	MA	Leased
4400 Computer Drive	Westborough	MA	Leased
31 Maple Street	Milford	MA	Owned

Facility Address	Town	State	Owned / Leased
50 Constitution Blvd	Franklin	MA	Owned
55 Constitution Blvd	Franklin	MA	Owned
111 Constitution Blvd	Franklin	MA	Leased
<hr/>			
21 Coslin / C&L Pk Dr - Bldg 1-4	Southborough	MA	Owned
32 Coslin Drive - Bldg 5	Southborough	MA	Owned
11 Coslin / 374 Tpk Rd - Bldg 6	Southborough	MA	Owned
Washington Street - Bldg 12	Southborough	MA	Owned
<hr/>			
42 South Street	Hopkinton	MA	Owned
80 South Street	Hopkinton	MA	Owned
117 South Street	Hopkinton	MA	Owned
171 South Street	Hopkinton	MA	Owned
176 South Street	Hopkinton	MA	Owned
176 South Street (WWT)	Hopkinton	MA	Owned
228 A South Street	Hopkinton	MA	Owned
228 B South Street	Hopkinton	MA	Owned
228 C South Street	Hopkinton	MA	Owned
239 South Street	Hopkinton	MA	Leased
<hr/>			
62 Alexander Drive	RTP	NC	Owned
5800 Technology Drive	Apex	NC	Owned
<hr/>			
2850 Premiere Parkway	Duluth	GA	Leased
<hr/>			
6701 Koll Center Parkway	Pleasanton	CA	Leased
6800 Koll Center Parkway	Pleasanton	CA	Leased
6801 Koll Center Parkway	Pleasanton	CA	Leased
2831 Mission College Blvd	Santa Clara	CA	Leased
2841 Mission College Blvd	Santa Clara	CA	Leased

Facilities excluded from the IMP because EMC does not have operational control include multiple sales offices throughout the United States. These sales office locations are small offices typically staffed with only a few employees. The Real Estate Group monitors the active sales office list.

(7-11) Operational Boundaries

Setting operational boundaries involves identifying the emissions associated with EMC’s operations and categorizing them as either core direct, core indirect, and optional emissions. At a minimum, all core direct and core indirect GHG emissions must be reported under the Climate Leaders Program.

To identify GHG emission sources at EMC facilities, meetings and conference calls were held with Regional Facilities and Real Estate Group staff to discuss emission sources and Climate Leaders Program requirements. The Real Estate Group maintains a listing of active EMC facility locations, CIP facilities, leased and subleased facilities. Regional Facilities staff help identify the emission sources at the various EMC facilities and which source types are present at each facility. The Facilities Department will notify the EHS Group if new sources are added to any facility, or if existing source types are changed.

Direct Emissions are from sources that are owned or controlled by EMC, such as emissions from onsite fuel burning equipment (e.g., boilers, emergency standby generators), and fugitive emissions from process equipment (e.g., refrigerant from refrigeration and HVAC equipment).

Indirect Emissions result from company activities, but occur offsite or are controlled by another company (e.g., purchased electricity consumed at EMC).

For the EMC IMP, only the Core Emissions are considered, no optional emissions are included. Under the Climate Leaders Program, EMC must account for and report GHG information separately for each emissions category. Separate reporting of direct and indirect emissions ensures that independent companies do not report the same emissions. EMC has evaluated and identified core emissions from its operations. These operational boundaries are presented in Table 2.

Table 2 EMC Operational Boundaries

Core Emission	Source	GHG
Direct		
Facility Heating – Natural Gas, Propane	Stationary Boilers, Water Heaters, HVAC	CO ₂ , CH ₄ , N ₂ O
Onsite Electricity Generation – Diesel Fuel, Natural Gas	Emergency Generators	CO ₂ , CH ₄ , N ₂ O
Fugitive Refrigerant Emissions	Chillers, Coolers, HVAC	HFCs
Transportation Mobile Source – gasoline, diesel, jet fuel	Owned or leased Vehicles	CO ₂ , CH ₄ , N ₂ O
Indirect		
Purchased Electricity	Facility Lighting, Process, and HVAC	CO ₂ , CH ₄ , N ₂ O

Electricity is purchased from various utilities to provide lighting and power to facility systems at all of the EMC facilities. Facilities are heated by either natural gas or propane. No propane-fired fork trucks were operated at the EMC facilities in 2005-2006. Certain Facility HVAC, kitchen coolers, and chiller process equipment contain HFCs. PFC's (perfluorocarbons) and SF6 (sulfur hexafluoride) emissions are not released as part of EMC's operations (typically found in the semiconductor industry). EMC operates owned or leased fleet vehicles and corporate jets.

A complete Facility Utilities and Mobile Source listing is provided in the Emission Spreadsheets in the Appendix.

Emissions Quantification

(12) Method

The following method will be used to quantify GHG emissions from the various sources at the EMC facilities:

- Indirect emissions will be quantified by compiling electric bills issued to each controlled facility and applying Climate Leaders emission factors associated with the electric grid sub-region defined by eGRID.
- Direct emissions from emergency generators have been quantified for the Base Year by reviewing generator operating logs, calculating associated fuel use based on maximum fuel consumption rate for each generator, and applying Climate Leaders emission factors for diesel fuel and natural gas combustion (Appendix B). Even by overestimating fuel consumption using maximum fuel consumption rates, the Base Year calculations indicate that GHG emissions from operation of emergency generators is only 0.2% of corporate total GHG emissions. Because of the low contribution to corporate GHG emissions, and because emergency generators are intended for use during power outages which EMC cannot control, the EPA approved that EMC will not continue to track generator emissions as part of Climate Leaders, but instead will assume that these emissions remain fairly constant and carry the Base Year emergency generator GHG emissions through future years.
- Direct emissions from facility heating via natural gas will be quantified by compiling natural gas bills issued to each controlled facility and applying Climate Leaders emission factors for natural gas combustion.
- Direct emissions from facility heating via propane will be quantified by compiling propane bills and applying Climate Leaders emission factors for propane combustion.
- Direct emissions from fugitive refrigerant use from stationary sources were quantified for 2004 by compiling service records of net refrigerant additions over the course of the year

for each facility and using Climate Leaders emission factors to calculate refrigerant emissions (Appendix B). The 2004 calculations indicate that GHG emissions from refrigerant use are only 0.3% of corporate total GHG emissions. Because of the low contribution to corporate GHG emissions, and because there is only a very low potential to achieve emission reductions from insignificant refrigerant use, the EPA approved that EMC will not continue to track refrigerant emissions from stationary sources as part of Climate Leaders, but instead will assume that these emissions remain fairly constant and carry the 2004 refrigerant GHG emissions through future years.

- Direct emissions from owned or leased mobile sources will be calculated based on fuel purchase records tracked under EMC corporate fleet program and based on jet fuel purchases for EMC corporate jets. Climate Leaders emission factors will be used to calculate mobile source emissions.

Detailed calculations of the above emissions, including conversion of CH₄, N₂O, and HFCs to CO₂-equivalent emissions, are provided in the emissions spreadsheets in the Appendix.

(13) Emission Factors

Emission factors to be used for direct emissions are presented in Table 3 and the emission spreadsheets in the Appendix. These emission factors were obtained from the EPA Climate Leaders Core Module Guidance Documents.

Table 3 GHG Emission Factors – Direct Combustion

Emission Source	CO₂	N₂O	CH₄
Stationary			
Natural gas	52.79 kg/MMBtu	0.095 g/MMBtu	4.75 g/MMBtu
Propane	62.93 kg/MMBtu	0.601 g/MMBtu	10.0 g/MMBtu
Diesel Fuel	72.42 kg/MMbtu	0.601 g/MMBtu	10.0 g/MMBtu
Mobile Sources			
Gasoline	8.79 kg/gal	Varies w/ vehicle type/age	Varies w/ vehicle type/age
Diesel	10.08 kg/gal	Varies	Varies
Jet Fuel	9.47 kg/gal	0.30 g/gal	0.261 g/gal

Note: CH₄ has a Global Warming Potential (GWP) of 21, and N₂O has a GWP of 310.

Table 4 presents direct emissions factors from refrigeration system HFC emissions.

Table 4 GHG Emission Factors – HFCs

HFC Type	% HFC	GWP
R-125	----	2800
R-134a	----	1300
R-143a	----	3800
R-152a	----	140
R-401a	13% R152a	18.2
R-401a	11% R152a	15.4
R-402b	60% R125	1680
R-404a	44% R125	3260
	4% R134a	
	52% 143a	

GWP = global warming potential based on CO2 equivalents

Table 5 presents indirect emission factors from purchases of electricity.

Table 5 GHG Emission Factors - Indirect

Emission Source Purchased Electricity	CO2 (lbs/MWh)	N2O (lbs/MWh)	CH4 (lbs/MWh)
New England (NEWE)	908.90	0.0798	0.0153
North Carolina (SRVC)	1146.39	0.0294	0.0192
Georgia (SRSO)	1490.37	0.0395	0.0249
California (CALI)	878.71	0.0359	0.0084

Note: eGRID emission rates for electricity represent year 2004 grid data. When eGRID emissions rates become available for later years, the inventory may be updated to reflect the correct emission rates for each year, depending on Significance Threshold applicability (see IMP Sections 22 & 23).

EMC will annually verify that references and emission factors are kept current by checking Climate Leaders website and EPA’s AP-42 emissions factors.

Data Management

(14 & 15) Activity Data & Data Management

Sources for corporate-wide electricity, propane, and natural gas usage will be from utility bills for each facility, as provided on issued utility bills and/or as available on the utilities website.

Invoices for electricity and natural gas for the Massachusetts facilities are forwarded by the individual facilities, or directly by the utility to the EMC 228 South Street location where they are reviewed for payment by Facilities Finance Staff. Utility invoices for natural gas and electricity are maintained at the individual facilities for the North Carolina, Georgia, and California locations. Upon request by the EHS Group, utility use data is provided to the EHS Group for incorporation into the Climate Leaders Inventory.

Propane usage is limited at EMC to the Apex North Carolina facility and the Wastewater Treatment Plant at 176 South Street, Hopkinton Massachusetts facility. Propane invoices for the Apex facility are maintained at the Apex facility, and propane invoices for the wastewater treatment plant are maintained by the contractor who operates the plant. Propane records are provided to the EHS Group upon request.

Emergency generator logs are kept by EMC Facilities staff and provide hours of operation from each generator. Generator Logs are forwarded to the EHS Group and maintained at EMC's 228 South Street location in Hopkinton, Massachusetts. The EHS Group maintains a 12-month running generator spreadsheet on emergency generator operating times. Operating times are then used to calculate emissions based on individual generator maximum fuel consumption rates. Because of the low contribution to corporate GHG emissions (~0.2%), and because emergency generators are intended for use during power outages which EMC cannot control, the EPA approved that EMC will not continue to track generator emissions as part of Climate Leaders, but instead will assume that these emissions remain fairly constant and carry the Base Year emergency generator GHG emissions through future years. The Facilities Group will report any new emergency generator installation to the EHS Group. The EHS Group will evaluate whether a Significance Threshold (see Sections 22 & 23) has been triggered by the installation of the new generator, and, if so, adjustments will be made to the GHG emissions calculated for emergency generators, which will be carried forward for future year's inventories.

Refrigerant loss records are determined from maintenance reports provided by equipment service providers. Each facility maintains records on refrigerant losses (emissions), which will be provided to the EHS Group upon request. Because of the low contribution to corporate GHG emissions (~0.3%), and because there is only a very low potential to achieve emission reductions from insignificant refrigerant use, the EPA approved that EMC will not continue to track refrigerant emissions as part of Climate Leaders, but instead will assume that these emissions remain fairly constant and carry the Base Year refrigerant GHG emissions through future years.

Mobile fleet fuel usage is tracked via corporate fueling card account and managed at EMC's 171 South Street location in Hopkinton, Massachusetts. The Transportation Manager maintains a listing of all owned and/or leased vehicles, including vehicle types, fuel consumption, and odometer readings. Calculation of mobile source GHG emissions is provided in the emission spreadsheets in the Appendix.

EMC's Domestic corporate jet fuel usage is tracked by fuel use records from flight logs maintained by the Aviation Department at Hanscom Field in Bedford, Massachusetts. Data on fuel usage for each EMC corporate jet are provided to the EHS Group upon request.

Real Estate data on operational facilities, CIP facilities, and leased and subleased facilities is maintained by the Real Estate Group as part of their Fixed Asset Register and Restructure Accounts. The Real Estate Group also maintains records on facility square footages.

The EHS Group will coordinate the assigning of roles and responsibilities for GHG inventory data management. Each year, the EHS Group and their assigned onsite contractor, will collect the above referenced data from the assigned Facilities staff. To complete the data, the onsite contractor may be required to contact utility websites and EMC facility staff and refrigeration contractors etc. to obtain a complete data set. The onsite contractor will conduct a review of the completeness of the data sources and use the data to calculate and complete the annual GHG Inventory. The contractor will communicate any concerns regarding the data integrity to the EHS Group, and prepare a complete set of back-up data upon which the inventory was based.

(16-17) Normalization Factors

EMC will normalize GHG emission data based on active facility square footage as provided by the Real Estate Group. Also, for the Base Year (2005) and the Goal End Year (2012) when a facility has only been active (i.e., in service by operational boundary definition) for a portion of a year, the square footage for that facility will be adjusted (normalized) by multiplying by the fraction of the year the facility was in service.

(18) Quality Assurance

The data collection process will be reviewed annually by EMC and the EHS Group onsite contractor during the annual inventory reporting process. EMC recognizes that there are potential sources for errors that are inherent to studies like Climate Leaders that encompass a large number of sites and volumes of separate data. For example, errors could occur when transferring data from supplier invoices, calculating emissions from emergency generators based on hours of operation versus actual fuel consumption, or calculating emissions from mobile source emissions based on published EPA vehicle ratings versus other available factors.

To ensure that the data collected for Climate Leaders is accurate, the following measures will be taken at a minimum annually:

- The EHS Group will contact the Real Estate Group to identify whether new owned or leased facilities where EMC has operational control have been added during the year and to confirm the status of existing facilities, such as CIP and subleased facilities. Also the status of existing operational facilities that may have been closed or otherwise divested will be confirmed.
- Inquiries to the EMC Regional Facilities staff will be conducted to identify new sources at facilities, including new or changed utilities, emergency generators, propane sources etc.
- The EHS Group onsite contractor will review generator logs, utility invoices, and EPA emission factors as part of the annual GHG emissions reporting process.
- The EHS Group will request, to the extent possible, that data used to calculate GHG be provided in a form that allows an “actual” calculation, versus an estimate.
- At its discretion, the EPA can conduct a periodic review of EMC’s GHG Inventory and identify any areas that appear to be in error.

By following these measures, EMC anticipates that GHG emission calculations will be fair and accurate.

(19) Data Security

Information compiled for the purposes of the EMC Climate Leaders initiative will be maintained by both EMC’s Director of Global EHS and the assigned onsite consultant contractor. At EMC, environmental records in hard copy are maintained in a secure location; electronic copies are maintained on a dedicated server at EMC that is accessible to select EMC staff.

(20) Integrated Tools - Optional

As part of the annual Management Review, EMC will evaluate opportunities to integrate utility and mobile source data management systems already employed to the tracking and reporting of Climate Leaders emissions data.

(21) Corporate Reporting Frequency

Facility data will be reported to the corporate EHS Group on an annual basis in time for annual inventory reporting, generally by the end of the first quarter.

Base Year

The base year for EMC's Climate Leaders reporting is 2005. A comprehensive 2005 Base Year Inventory is provided in the Appendix.

(22 & 23) Adjustments to Base Year Emissions – Structural & Methodology Changes

Structural changes include mergers, acquisitions, and divestments and/or outsource or insourcing of GHG emitting activities. Also, changes in the status of leased assets are considered structural changes. Methodology changes include changes in activity data accuracy, changes in emission factors, and/or changes in the methodology used to calculate GHG emissions.

Discovery of significant errors in Base Year emission calculations can necessitate a change in the Base Year emissions inventory. Also significant structural or methodology changes in future years may necessitate an adjustment to the Base Year emissions to ensure that data is consistent and historically relevant. EMC defines a "Significance Threshold" requiring a change in the Base Year emissions as a significant structural or methodology change or discovery of error(s) resulting in at least a 0.5% change in total corporate-wide GHG emissions over or under the emissions that would result if a correction is not made. Also, a Significance Factor of 2% change in individual facility GHG emissions from the previous year's emissions will trigger an internal verification review for that facility (see Section 27). The Director of EHS will evaluate the Significant Thresholds on an annual basis and may make adjustments to the thresholds as deemed appropriate once additional historical data is developed for the facilities.

Structural changes at EMC will be identified during the annual inventory reporting process via consultation with the EMC Real Estate and Facilities Groups. EMC will apply the EPA Climate Leaders Design Principles criteria and procedures to determine whether a structural change requires a change in Base Year emissions, and to determine how the Base Year emissions should be adjusted.

Per the Climate Leaders Design Principles guidance, Base Year emissions will not be recalculated for the following structural changes:

- Acquisition of new facilities that did not exist in the Base Year
- Outsourcing/Insourcing reported under Core Indirect Emissions
- Organic Growth or Decline

Methodology changes at EMC would likely be identified during the annual inventory reporting process via data review by the onsite contractor and the EHS Group. EMC will apply the EPA Climate Leaders Design Principles criteria and procedures to determine whether a methodology change requires a change in Base Year emissions, and to determine how the Base Year figures should be adjusted.

Changes due to New Emission Factors:

Emissions factors for electricity, fuel use, and mobile sources are contained within the emissions spreadsheets (Appendix). In the event that there is a change in a published emission factor that does not reflect a real change in actual emissions from the source (i.e., published emission factors change, but actual equipment emission rates do not), the emission factors will be changed for each of the previous years as well as the current one and the Base Year. By changing the emissions factors for each of the previous reporting years, the emissions calculations remain historically consistent and relevant since the same factors are used throughout.

Changes due to Errors:

Arithmetic and data entry mistakes can occur in the recording and reporting of emissions data (incorrect conversion factors, wrong data reported from facilities, incorrect data entry into spreadsheets, incorrect spreadsheet formula calculations, etc). Should errors be identified during subsequent year inventory reporting that trigger the Significance Threshold, corrections to the Base Year emissions will be made.

Changes due to Data Accuracy and Availability:

Should new data become available on source emissions that was not previously available (refrigerant loss records etc.) or if new methodology results in obtaining more accurate data on source emissions, an adjustment to the Base Year Emissions may be required. In such cases the Significance Threshold will be evaluated to determine whether adjustments to past year's inventories are warranted.

Management Tools

EMC's manufacturing operations are certified to the world's highest environmental distinction, ISO 14001. This certification was achieved in September 2004. In accordance with ISO standards, EMC has developed written processes and procedures detailing EMC's Environmental Management System (EMS). Each of the following sections of the IMP summarizes a specific environmental procedure. If requested by EPA, EMC can furnish the full text of these procedures.

(24) Roles and Responsibilities (EMC procedure 672)

EMC's EHS department is structured as part of the Global Facilities & Real Estate Department, reporting directly to the Senior Vice President of Legal Counsel. EMC's Director of Global Environmental, Health and Safety (EHS) has been appointed as EMC's top environmental management representative. It is the responsibility of the Director of Global EHS to ensure (with the support of management in other corporate functions) that EMC has the resources essential to establish, implement, maintain and improve the environmental management system. These resources include human resources and specialized skills, organizational infrastructure, technology and financial resources.

For the purposes of Climate leaders, the Director of Global EHS leads the initiative, with support from Regional Facilities staff familiar with individual site operations, the Transportation Department which tracks mobile sources, the Aviation Department which tracks corporate jet activity, Facilities Finance which tracks utility information, and the EHS Group onsite contractor. The contractor will assemble information provided by EMC to calculate baseline and annual GHG emission calculations. Main points of contact are:

GLOBAL:

Kevin Biernacki, CSP
Director Global Environmental Health & Safety (EHS)
228 South Street, Hopkinton, MA
Telephone: 821 76556, (508) 293-6556

Dan Fitzgerald
Vice President, Global Facilities & Real Estate
228 South Street, Hopkinton, MA
Telephone: 821 77123, (508) 293-7123

Paul Sauvageau Jr., P.E.
EHS Onsite Contractor
Senior Environmental Engineer
228 South Street, Hopkinton, MA
Telephone: 821 77239, (508) 293-7239

(25) Training (EMC Procedure 605)

The purpose of EMC's training procedure is to ensure that training that pertains to EMC's Environmental Policy, objectives and targets, pertinent legislation, environmental aspects and significant effects is provided to specific employees for competency in execution of their environmental responsibilities. The EMC Director of Global EHS is responsible to ensure that specific employees are trained in relevant procedures and are aware of their environmental responsibilities. The Human Resources Department conducts orientation training for new employees entitled Compass, a portion of which is dedicated to EHS matters. The Compass program is compulsory for new employees. The EMC Director of Global EHS ensures that relevant environmental subject matter is incorporated into this orientation program. The EHS department conducts periodic training on its ISO 14001 program for employees whose work may create a significant impact on the environment. This program is developed by the EHS department, and is presented by the EHS Department and/or the Corporate Quality and Manufacturing Training Departments.

Awareness training of EMC's participation in the Climate Leaders Program will be provided via EMC's In-house Newsletter, targeted conference calls with applicable Facilities Group and Management Staff, and email updates sent out by the EHS Group to applicable staff. Representatives of the EHS Group and/or the onsite contractor will attend annual Climate Leaders Partner Meetings and provide relevant updates to applicable EMC staff.

(26) Document Retention and Control Policy (EMC Procedure 611)

EMC has several procedures that specify the method EMC employs to ensure control of environmental management system documents, including retention times. EMC's Director of Global EHS is responsible for managing documentation associated with the EMS, and for ensuring compliance with these procedures as they apply to the EMS. Various environmental records required for implementing and operating the environmental management system, and recording objectives and targets are maintained per state and federal regulatory requirements, and as part of good management practice. Environmental documents may include records, procedures, registration documents, permit and permit exclusions, certificates, and licenses in environmental areas covering land, air, water or tanks.

Records used to calculate and document the GHG Inventory from the Base Year through the end of the Goal period will be maintained by EMC's document retention and control policy for at least the duration of our Climate Leaders Goal Period, through 2012.

Auditing & Verification

(27) Internal Auditing (EMC Procedure 182)

EMC conducts internal audits of its quality and environmental management systems as required by ISO 9000 and 14000 standards. EMC also conducts second party quality system audits of suppliers. Internal audits determine whether its implemented systems:

- Conform to planned arrangements,
- Conform to the requirements of International Standard ISO 9001
- Conform to the requirements of International Standard ISO 14001
- Are effectively implemented and maintained.

EMC Audit procedures defines the program for conducting internal quality system and environmental management system audits for verification of conformity, as well as the program for planning and conducting second party supplier audits. This procedure defines the requirements for the following:

- Managing the audit program,
- Qualification of auditors,
- Assignment of auditors,
- Planning, performing and reporting audits, and
- Audit operational factors.

The Audit Program Management group manages the program for these internal audits. Qualified Internal Quality Auditors perform internal audits. Records must be retained for at least 3 years to support ISO 9000 and 14000 Registrar audits. Audit data used to generate the report is contained within EMC's IQS Business System. Audit reports are made available via the CQ intranet for a period of at least 2 years.

The Director of Global EHS will conduct a desktop review of the corporate GHG Inventory background data and Annual GHG Inventory Summary and Goal Tracking Form each year, prior to submission to EPA. Based on this review, a facility triggering a Significance Threshold will in turn trigger the need for an internal verification review of that site. The Director of Global EHS will either conduct the verification review, or assign the task to another qualified EMC staff or the onsite contractor. It is expected that all Facilities will be internally reviewed for verification of GHG emissions and tracking within the Goal period.

(28) External Auditing (Optional)

The EHS Group onsite contractor will be assigned the primary responsibility for reviewing and updating the Inventory Management Plan, the corporate GHG Inventory, and the annual GHG Inventory Report to EPA. The contractor will meet frequently with the Director of Global EHS to review Climate Leaders program implementation and decide whether additional external auditing is warranted. Should an external audit be warranted, the Director of Global EHS will direct an external onsite audit of the selected facility(ies).

(29) Management Review (EMC procedure 629)

EMC has established a procedure that defines the process used by top management to review the organization's environmental management system at planned intervals. The purpose of these management reviews is to maintain continual improvement, suitability, adequacy and effectiveness of the environmental management system, and thereby its performance. The environmental management reviews include the ISO 14001 elements. The EMC Director of Global Environmental Health and Safety (EHS) and the senior plant management are responsible for reviewing the organization's environmental management system. During such reviews, the Director of Global EHS addresses the following:

- The Environmental Policy
- Results of internal audits, and evaluations of compliance with legal requirements and with other requirements to which we subscribe
- Communication from external interested parties, including complaints
- EMC's environmental performance
- Objectives and targets, and the extent to which they have been met
- Status of Corrective and Preventive Actions as provided by Corporate Quality following internal and external audit findings
- The continuing suitability of the environmental management system in relation to changing conditions and information
- Concerns amongst relevant internal interested parties
- Follow-up actions from previous management reviews
- Changing circumstances, including developments in legal and other requirements related to the environmental aspects
- Recommendations for continual improvement

This summary is presented to plant management as input into the effectiveness of the Environmental Management System at least annually.

The Director of Global EHS will meet with EMC Management on an annual basis to review the goals and status of EMC's Climate Leaders Program and program elements. Based on the annual meeting, senior management will ascertain how the Climate Leaders program is being implemented at EMC and ensure that necessary resources are available to the EHS Group and Facilities Groups to successfully achieve GHG reduction targets.

(30) Corrective Action (EMC Procedure 317)

EMC's procedure on corrective action defines the system for implementing corrective and preventive actions, including actions taken to eliminate the cause(s) of nonconformities or other undesirable situations related to products, processes, or the quality management system. The scope also includes action taken to eliminate environmental nonconformities. EMC implements corrective actions as appropriate to the effects of the problems encountered.

It is EMC policy to take corrective action in accordance with this procedure to eliminate the causes of nonconformities in order to prevent recurrence. Corrective action shall be appropriate to the effects of the nonconformities encountered.

For the Climate Leaders Program, corrective actions will be implemented at the direction of the Director of Global EHS in response to a desktop review and/or an internal or external audit identifying a Significance Threshold criteria item or other significant structural or methodological issue that warrants corrective action. Such corrective actions will be documented by changes in the IMP and/or the GHG Inventories. Changes to documents, inventories, plans etc. are subject to the IMP Document Retention and Control Policy.

The following groups have responsibilities defined in the corrective action procedure:

- Corporate Quality
- Customer Service
- Audit Program Management
- Environmental, Health and Safety
- Manufacturing
- Facilities

Appendix A:
**EMC Climate Leaders
Partnership Agreement**

The EPA's Climate Leaders Partnership is a voluntary program that challenges companies to set an aggressive, corporate-wide greenhouse gas (GHG) emissions reduction goal. Partners also perform an annual inventory of their GHG emissions to track progress towards their reduction goal.

With this agreement, EMC Corporation joins EPA's Climate Leaders Partnership and commits to:
Name of Company

- Complete a company-wide inventory of GHG emissions annually as outlined by the Climate Leaders emissions protocol.
- Report corporate GHG inventory data annually.
- Develop and document for EPA an inventory management plan consistent with the Climate Leaders Inventory Management Plan Checklist.
- Enter into discussions with EPA to develop an aggressive corporate-wide GHG reduction goal to be achieved over 5 to 10 years.

In return, EPA commits to:

- Provide partners with the technical assistance necessary to complete a high quality GHG inventory.
- Provide partners with a GHG protocol to inventory their GHG emissions.
- Publicize Partner's GHG inventory data and/or accomplishments only with express permission of the company, except as otherwise required by law.

General Terms:

- Either party can terminate this agreement at any time without prior notification or penalties and no further obligation. EPA agrees not to comment publicly regarding the withdrawal of partners.
- Partner agrees that the activities it undertakes connected with this agreement are not intended to provide services to the federal government and that the partner will not seek compensation from a federal agency.
- Partner agrees that it will not claim or imply that its participation in the Climate Leaders program constitutes EPA approval or endorsement of anything other than its commitment to this program and will not make statements or imply that EPA endorses the purchase or sale of the Partner's products and services or the views of the Partner's organization.

Authorized Corporate Official:

On behalf of EMC Corporation, the undersigned understands and agrees to the terms of EPA's Climate Leaders Partnership.
Name of Company

Signature:  Title: Vice President, Global Facilities

Print Name: Daniel Fitzgerald Date: 12/30/04

Designated Company Representative:

Name: Kevin F. Biernacki, CSP Title: Director of Global EHS

Address: EMC Corporation 228 South Street

City: Hopkinton State: MA Zip: 01748

Phone: 508-435-1000 Fax: 508-435-3324 E-mail: Biernacki Kevin@emc.com

Please fax agreement to Climate Leaders at 202.343.2208

Appendix B:
Annual GHG Inventories

A. Direct Sources	2006 Emissions (CO2-eq tonnes)	% of Total
1. Stationary Combustion		
Natural Gas Heating	7,292	3.65%
Propane Heating	38	0.02%
2005 Diesel Engines	345	0.17%
2005 Natural Gas Engines	12	0.01%
Subtotal:	7,687	3.85%
2. Mobile Combustion		
Gasoline Vehicles	675	0.34%
Diesel Vehicles	8	0.00%
Corporate Jets	2,975	1.49%
Subtotal:	3,658	1.83%
3. Refrigeration		
2004 Stationary Refrigeration	571	0.29%
2006 Mobile Source Refrigeration	29	0.01%
Subtotal:	600	0.30%
<hr/>		
Total Direct Emission:	11,945	5.98%

B. Indirect Sources	2006 Emissions (CO2-eq tonnes)	% of Total
1. Electricity Purchases		
Total Indirect Emissions:	187,760	94.02%

Total 2006 GHG Emissions: 199,705 tonnes
5,231,015 total facility square feet

Normalized GHG Emissions:	38.18	tonnes/1000 square feet
----------------------------------	--------------	--------------------------------

Appendix C:
**EPA Annual GHG Inventory
Summary and Goal Tracking Form**



ANNUAL GHG INVENTORY SUMMARY AND GOAL TRACKING FORM

Required: Optional: Calculated:

Partner Name:	EMC Corporation
Reporting Year:	2006

Inventory Contact Person:	Kevin Biernacki C.S.P.	Title:	Director of Global EHS
Department/Division:	Global facilities		
Street Address:	228C South Street		
City:	Hopkinton	State:	MA
Zip Code:	01748		
Telephone Number:	(508) 293-6556	Fax Number:	(508) 435-3324
E-mail Address:	biernacki_kevin@emc.com		

Corporate Inventory - U.S.	Base Year	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8 Goal Year	Year 9	Year 10	Year 11
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
EMISSIONS - Annual CO₂-eq. (metric tons)											
<i>Direct Emissions</i>											
Stationary Combustion Sources	8,619	7,687									
Mobile Combustion Sources	3,902	3,658									
Refrigeration / AC Equip. Use	602	600									
Process / Fugitive (specify source):											
Total Direct Emissions	13,123	11,945	0	0	0	0	0	0	0	0	0
<i>Indirect Emissions</i>											
Purchased and Used Electricity	169,660	187,760									
Purchased and Used Steam	0	0									
Purchased and Used Hot Water	0	0									
Purchased and Used Chilled Water	0	0									
Total Indirect Emissions	169,660	187,760	0	0	0	0	0	0	0	0	0
<i>Optional Emissions (specify source):</i>											
Total Optional Emissions	0	0	0	0	0	0	0	0	0	0	0
Direct + Indirect + Optional Emissions											
Total U.S. Emissions	182,783	199,705	0	0	0	0	0	0	0	0	0

REQUIRED SUPPLEMENTAL INFORMATION											
<i>Biomass CO₂ Emissions - (metric tons/yr.)</i>											
Total Stationary - Biomass CO₂	0	0									
Total Mobile - Biomass CO₂	0	0									

OPTIONAL CFC/HCFC SUPPLEMENTAL INFORMATION - (metric tons/yr.)											
---	--	--	--	--	--	--	--	--	--	--	--

OPTIONAL ELECTRICITY/STEAM SALES INFORMATION - (Non-Utilities with Normalized Targets)											
---	--	--	--	--	--	--	--	--	--	--	--



ANNUAL GHG INVENTORY SUMMARY AND GOAL TRACKING FORM

Required:
 Optional:
 Calculated:

Partner Name:	EMC Corporation
Reporting Year:	2006

Corporate Inventory - Non-U.S. [OPTIONAL]	Base Year	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8 Goal Year	Year 9	Year 10	Year 11
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
EMISSIONS - Annual CO₂-eq. (metric tons)											
<i>Direct Emissions</i>											
Stationary Combustion Sources											
Mobile Combustion Sources											
Refrigeration / AC Equip. Use											
Process / Fugitive (specify source):											
Total Direct Emissions	0	0	0	0	0	0	0	0	0	0	0
<i>Indirect Emissions</i>											
Purchased and Used Electricity											
Purchased and Used Steam											
Purchased and Used Hot Water											
Purchased and Used Chilled Water											
Total Indirect Emissions	0	0	0	0	0	0	0	0	0	0	0
<i>Optional Emissions (specify source):</i>											
Total Optional Emissions	0	0	0	0	0	0	0	0	0	0	0
<i>Direct + Indirect + Optional Emissions</i>											
Total Non-U.S. Emissions	0	0	0	0	0	0	0	0	0	0	0
REQUIRED SUPPLEMENTAL INFORMATION											
<i>Biomass CO₂ Emissions - (metric tons/yr.)</i>											
Total Stationary - Biomass CO₂											
Total Mobile - Biomass CO₂											
OPTIONAL CFC/HCFC SUPPLEMENTAL INFORMATION - (metric tons/yr.)											
OPTIONAL ELECTRICITY/STEAM SALES INFORMATION (Non-Utilities with Normalized Targets)											



ANNUAL GHG INVENTORY SUMMARY AND GOAL TRACKING FORM

Required: Optional: Calculated:

Partner Name:	EMC Corporation
Reporting Year:	2006

Corporate Inventory - Total (U.S. + Non-U.S.)	Base Year	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8 Goal Year	Year 9	Year 10	Year 11
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
EMISSIONS - Annual CO₂-eq. (metric tons)											
Direct Emissions											
Stationary Combustion Sources	8,619	7,687	--	--	--	--	--	--	--	--	--
Mobile Combustion Sources	3,902	3,658	--	--	--	--	--	--	--	--	--
Refrigeration / AC Equip. Use	602	600	--	--	--	--	--	--	--	--	--
Process / Fugitive (specify source):	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--	--
Total Direct Emissions	13,123	11,945	0	0	0	0	0	0	0	0	0
Indirect Emissions											
Purchased and Used Electricity	169,660	187,760	--	--	--	--	--	--	--	--	--
Purchased and Used Steam	--	--	--	--	--	--	--	--	--	--	--
Purchased and Used Hot Water	--	--	--	--	--	--	--	--	--	--	--
Purchased and Used Chilled Water	--	--	--	--	--	--	--	--	--	--	--
Total Indirect Emissions	169,660	187,760	0	0	0	0	0	0	0	0	0
Optional Emissions (specify source):											
	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--	--
Total Optional Emissions	0	0	0	0	0	0	0	0	0	0	0
Direct + Indirect + Optional Emissions											
Total Emissions	182,783	199,705	0	0	0	0	0	0	0	0	0

REQUIRED SUPPLEMENTAL INFORMATION											
Biomass CO₂ Emissions - (metric tons/yr.)											
Total Stationary - Biomass CO ₂	--	--	--	--	--	--	--	--	--	--	--
Total Mobile - Biomass CO ₂	--	--	--	--	--	--	--	--	--	--	--

OPTIONAL CFC/HCFC SUPPLEMENTAL INFORMATION - (metric tons/yr.)											

OPTIONAL ELECTRICITY/STEAM SALES INFORMATION (Non-Utilities with Normalized Targets)											



ANNUAL GHG INVENTORY SUMMARY AND GOAL TRACKING FORM

Required: Optional: Calculated:

Partner Name:	EMC Corporation
Reporting Year:	2006

External Projects	Base Year	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8 Goal Year	Year 9	Year 10	Year 11
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<i>Reductions from RECs and Green Power Purchases to Indirect Emissions- Annual CO₂-eq. (metric tons)</i>											
<i>Reductions from Offsets - Annual CO₂-eq. (metric tons)</i>											

Partner Base Year:	2005
Partner Goal Year:	2012
Goal Emissions Tracking "Absolute" or "Normalized":	Normalized
Goal Year Emissions Target: <small>(expressed as a percent decrease from base year)</small>	8%
Specify Normalization Factor (NF) Units: <small>(only if tracking normalized emissions for goal)</small>	per 1000 square feet

Corporate Goal Tracking	Base Year	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8 Goal Year	Year 9	Year 10	Year 11
Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
NORMALIZED EMISSIONS GOAL TRACKING											
	CO ₂ -eq. (metric tons)	CO ₂ -eq. (metric tons)	% change from base yr	CO ₂ -eq. (metric tons)	% change from base yr	CO ₂ -eq. (metric tons)	% change from base yr	CO ₂ -eq. (metric tons)	% change from base yr	CO ₂ -eq. (metric tons)	% change from base yr
Total U.S. Emissions	182,783	199,705	9.3%	--	--	--	--	--	--	--	--
Total Non-U.S. Emissions	--	--	--	--	--	--	--	--	--	--	--
Total Absolute Emissions	182,783	199,705	9.3%	--	--	--	--	--	--	--	--
	per 1000 square feet	per 1000 square feet	% change from base yr	per 1000 square feet	% change from base yr	per 1000 square feet	% change from base yr	per 1000 square feet	% change from base yr	per 1000 square feet	% change from base yr
Total U.S. Normalization Factor Value	4,944	5,231	5.8%	--	-100.0%	--	-100.0%	--	-100.0%	--	-100.0%
Total Non-U.S. Normalization Factor Value	--	--	--	--	--	--	--	--	--	--	--
Total Normalization Factor Value	4,944	5,231	5.8%	0	-100.0%	0	-100.0%	0	-100.0%	0	-100.0%
	CO ₂ -eq. / NF Units	CO ₂ -eq. / NF Units	% change from base yr	CO ₂ -eq. / NF Units	% change from base yr	CO ₂ -eq. / NF Units	% change from base yr	CO ₂ -eq. / NF Units	% change from base yr	CO ₂ -eq. / NF Units	% change from base yr
Total U.S. Normalized Emissions	36.97	38.18	3.3%	--	--	--	--	--	--	--	--
Total Non-U.S. Normalized Emissions	--	--	--	--	--	--	--	--	--	--	--
Total Normalized Emissions	36.97	38.18	3.3%	--	--	--	--	--	--	--	--
Goal Year Normalized Emissions Target	N/A	--	--	--	--	--	--	34.02	-8.0%	--	--
	--	--	% change from base yr	--	% change from base yr	--	% change from base yr	--	% change from base yr	--	% change from base yr
Carbon Intensity Index (CII)	100	--	--	--	--	--	--	--	--	--	--
Goal Year Carbon Intensity Index (CII) Target	N/A	--	--	--	--	--	--	92	-8%	--	--

ANNUAL GHG INVENTORY SUMMARY AND GOAL TRACKING FORM

Required: Optional: Calculated:

Partner Name:	EMC Corporation
Reporting Year:	2006

Date Form Completed:	06/21/07
-----------------------------	----------

Number of times base year has been adjusted since the first inventory submittal:	2
---	---

Identify and describe changes made to the baseline data since the previous year's inventory (e.g. acquisitions, divestitures):	<p>EMC Acquisition of pre-existing RSA/NI Bedford and Westwood Massachusetts facilities in 2006 – included in Base Year due to facilities being in operation in 2005.</p> <p>Inclusion of EMC Legato Nashua NH Facility which meets IMP operational control definition, included in 2006 and 2005 Base Year inventories.</p> <p>Minor adjustments to Facility Square Footages due to availability of more precise data. Changes made to 2006 and Base Year for consistency.</p> <p>Addition of missing electric account at 239 South St. and missing natural gas account at 111 Constitution Ave. facility to Base Year.</p> <p>Removed direct natural gas emissions from 900 West Park Dr. facility from Base Year – inactive/not occupied - does not meet operational control definition.</p> <p>Minor Base Year adjustments to corporate jet fuel uplift for domestic flights (see below).</p> <p>Use of new 2004 eGrid emission factors.</p>
---	--

Identify any changes in methodologies or sources that are different than the previous year's inventory:	<p>Adjustments to corporate jet fuel uplift for domestic flights to include first leg of international flights originating in U.S.</p> <p>Use of new 2004 eGrid emission factors in 2006 and 2005 Base Year.</p>
--	--

Describe any major differences from the previous year's inventory:	<p>New facility at 55 Constitution Ave. in Franklin MA came online in 2006.</p> <p>EMC acquisition of pre-existing RSA/NI Bedford and Westwood Massachusetts facilities in 2006.</p> <p>Minor adjustments to facility square footages to reflect more precise data - changes made to both 2006 and 2005 Base Year inventories for consistency.</p>
---	--