

Ontario Emissions Trading Code

Emission Reduction Credit creation, recording and transfer rules, rules for renewable energy projects and conservation projects, and rules for the Operation of the Ontario Emissions Trading Registry

Air Policy and Climate Change Branch

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1. Introduction

Overview of the Ontario Emissions Trading Code

The Ontario Emissions Trading Code (the “Code”), which includes all Appendices and Schedules, has been prepared for reference by parties applying to create Emission Reduction Credits (“ERCs”) or by holders of ERCs, persons who have received emission allowances, the operator of the Ontario Emissions Trading Registry (the “Registry”), persons who are applying for emission allowances in respect of renewable energy projects and conservation projects, and other people with an interest in Ontario’s Emission Trading program to assist in reducing emissions of nitric oxide (“NO”) and sulphur dioxide (“SO₂”) into Ontario’s airshed.

The Code is intended to supplement the Ontario Regulation 397/01 governing emissions trading made under the *Environmental Protection Act* (the “Regulation”) and provide specific information about its requirements.

The contents of this Code may change from time to time due to Ministry of the Environment (“the Ministry”) review. When changes are made, a notice of amendment will be published in the *Ontario Gazette* or on the *Environmental Bill of Rights* Registry. The Code also sets out rules for renewable energy projects and conservation projects for which applications for emission allowances can be made pursuant to the Regulation.

The Code describes the rules for the creation and transfer of ERCs. It also sets out the rules for the operation of the Registry that has been created to provide the public with information about the Emission Trading program.

Projects that are intended to be eligible to receive emission allowances in connection with a renewable energy project or conservation project shall adhere to the procedures and requirements set out in this Code which determine their eligibility to claim a portion of the set aside and the amount of that claim.

2. The Ontario Emission Trading Registry

2.1 General

The Registry has been established to provide notice to the public of the distribution and retirement of NO and SO₂ emission allowances and of the creation and retirement of NO and SO₂ ERCs; and, to provide public access to all documentation submitted in support of an application to create an ERC including but not limited to the Protocol, the Emission Reduction (“ER”) Report, and the Verification Report. The Registry also records decisions about credit creation and credit and allowance retirement.

Comments and documents shall be submitted for recording on the Registry by registered mail, courier, fax, or email. All documents received by the operator of the Registry for recording on the Registry shall be recorded within 7 days of receipt by the operator of the Registry, unless specified otherwise in this Code.

Parties seeking to create ERCs from emission reductions achieved as a result of an emission reduction project, and parties seeking to have an emission reduction from a renewable energy project or energy conservation project submitted as a claim for an emission allowance award from the emission allowance set aside, shall submit all documentation supporting the creation of the ERC or the set aside award, including, but not limited to, the Notice of Intent to Create, the Protocol, the Emission Reduction Report (for each 12 month ER period), and the Verification Report (for each 12 month ER period), to the Registry.

Upon completion of a review by the Registry, the documents shall be recorded on the Registry for 30 days for public review and comment.

At the end of the 30 day public review and comment period, the parties seeking to have their emission reductions used to create ERCs, or to claim an emission allowance award from the set aside, shall make written application to the Director and submit to him/her all documentation supporting the creation of the ERC, or the allowance claim, including, but not limited to the Notice of Intent to Create, the Protocol, the Emission Reduction Report and the Verification Report, as well as comments from the public that have been submitted to and recorded on the Registry in the course of the public review.

Further information on the treatment of claims on awards from the set aside appear in Section 4.10 of the Code.

Within 30 days of receiving the application the Director shall either approve or reject the application to create ERCs. Upon making his/her decision to accept or reject the application, the Director shall inform the applicant and the Registry of his/her decision within 7 days by providing to each either a Notice of Creation or a Notice of Denial of Creation, whichever the case may be. The Registry shall record the Director's notice.

A Proponent is the person seeking to create an ERC. Upon receiving a Notice of Denial of Creation, a Proponent may revise his/her documentation and re-apply for creation; or, he/she may withdraw the documentation from the Registry.

Once recorded on the Registry, the Notice of Creation and all documents submitted in support of an emission reduction and associated ERC creation, and all comments made and submitted to the Registry in respect of an ERC, shall remain on the Registry in perpetuity, or until the Minister orders or gives consent to its removal.

ERs that are transferred to the Registry from another registry or jurisdiction must be accompanied by documents required by this Code, and must be approved for ERC creation by the Director according to the Code.

The operator of the Registry shall maintain a web site, and shall make the Registry accessible to all persons by way of the web site.

All persons shall have access to the Registry in order to view documents recorded on the Registry, and shall have the right to have comments recorded in respect of an application to create an ERC and associated documents contained on the Registry.

The operator of the Registry shall record public Notices on its web site of new recordings on the Registry of documents in respect of an application to create an ERC, and in respect of emission allowance and ERC retirement.

The operator of the Registry shall keep records of and shall record all public comments made in respect of the information recorded on the Registry.

Upon request from the Director at any time, or from the person seeking the Director's approval to create ERCs, or from a person intending to purchase or retire an ERC the operator of the Registry shall provide all public comments received in respect of the information recorded on the Registry of an ERC and/or all documents associated with an ERC recorded on the Registry, in a format satisfactory to the Director.

The operator of the Registry shall amend the Registry to indicate that retired emission allowances, retired ERCs, and emission reductions from renewable energy projects and conservation projects that are used to obtain emission allowances under Section 12 or 15 of the Regulation no longer exist.

The Operator of the Registry will also amend the Registry to indicate that an emission reduction recorded on the Registry has been approved for creation of an ERC, or has been denied for creation of an ERC.

2.2 Registry Notices

The following are forms used by the Registry.

1. Notice of Emission Allowance Distribution
2. Notice of Intent to Create
3. Notice of Emission Reduction
4. Notice of Transfer
5. Notice of Verification
6. Notice of Creation
7. Notice of Denial of Creation
8. Notice of Intent to Retire
9. Notice of Retirement
10. Notice of Application for ERC Creation Outside the Eligibility Zone
11. Notice of Director's Decision Regarding ERC Creation Outside the Eligibility Zone
12. Notice of Voluntary Retirement

2.2.1 Notice of Emission Allowance Distribution

A copy of the Notice of Emission Allowance Distribution is provided to the operator of the Registry by the person receiving the allowance within 7 days of his/her receipt of allowances. Upon receipt of the Notice of Emission Allowance or written notice from the Director that a person has acquired an emission allowance, the operator of the Registry shall record the emission allowances distributed to each recipient in the recipient's account created on the Registry by the operator of the Registry.

Emission allowances that are acquired by Ontario Power Generation ("OPG") pursuant to section 7, 9, 13 or subsection 14(9) of the Regulation shall, within 30 days of their distribution, be redistributed by OPG to each Combined Nitric Oxide Facility and to each Combined Sulphur Dioxide Facility. OPG shall report the redistributions to the Director using a Notice of Transfer.

The Notice shall identify the facility to which it relates and the number of allowances being distributed to it.

2.2.2 Notice of Intent to Create

The Notice of Intent to Create shall be the first page, and as such forms part, of any Protocol submitted to the Registry. The Notice is used to initialize Registry database records with key information about the Protocol. The Notice shall identify: the Proponent, the Standard Method used, the emission reduction project location, and the expected annual and cumulative emission reductions.

The Notice of Intent to Create shall be recorded on the Registry for at least 30 days before the Emission Reduction Report.

2.2.3 Notice of Emission Reduction

An ERC can be created only upon the approval of an ER by the Director. The Notice of Emission Reduction shall be the first page appearing in any Emission Reduction Report submitted to the Registry, and as such forms part of the Emission Reduction Report. There must be a separate Notice of Emission Reduction provided for each 12-month period for which applications for creation of ERCs are being made. This Notice must identify the Proponent, the Standard Method used, the emission reduction project location, the creation period and the amount of ERs. The amount of the ER achieved in the smog season, and the amount achieved in the non-smog season, shall be identified

The Notice of Emission Reduction includes a Notice of Verification, which confirms that the emission reduction occurred by the amount being claimed by the Proponent.

2.2.4. Notice of Transfer

The Notice of Transfer shall be used to register a transfer of ERCs or emission allowances from one Registry account to another. ERCs and emission allowances cannot be transferred except by Notice of Transfer.

For ERCs a Notice of Transfer must identify the ERC Protocol and Emission Reduction Report originally associated with the ERCs, the amount being transferred and the amount remaining with the current holder of the ERCs, the name and address of the current holder of the ERCs and of the recipient of the ERCs.

For emission allowances the Notice of Transfer must identify the date the emission allowances were distributed, and the original emission allowance recipient, the current holder of the emission allowances and the new recipient of the emission allowances.

OPG shall submit Notices of Transfer for the redistributions of emission allowances to each Combined Nitric Oxide Facility and to each Combined Sulphur Dioxide Facility to the operator of the Registry. The operator of the Registry shall, upon receipt from OPG of the Notices of Transfer, record the transfer of emission allowances from the OPG emission allowance account to the account of each Combined Nitric Oxide Facility and of each Combined Sulphur Dioxide Facility.

2.2.5 Notice of Verification

The Notice of Verification shall be the first page, and as such forms part, of the Verification Report and shall provide information that the ER has been verified by a qualified Verifier in accordance with the Code. The Notice shall identify the Protocol and the Emission Reduction Reports that are associated with the ER, and identify the Verifier, and the results of the Verification Report. The Director is not bound to approve the ER as an ERC.

The Verification Report accompanies the Emission Reduction Report and is part of it.

2.2.6 Notice of Creation

Approval of an application to create an ERC constitutes creation of an ERC from an ER. The Notice of Creation is issued by the Director and shall be used to publicly indicate approval by the Director that an ERC has been created from an ER. Approval cannot be reversed except in cases where fraud or improper ER quantification has been shown to the satisfaction of the Director to have occurred that led to the creation of the ERC.

The Registry shall record the Notice of Creation upon receiving it.

2.2.7 Notice of Denial of Creation

The Notice of Denial of Creation shall be issued by the Director and used to publicly indicate that the Director has determined that an ER submitted to him/her for creation of an ERC was not acceptable for that purpose.

The Registry shall record the Notice of Denial of Creation.

2.2.8 Notice of Intent to Retire

Written notice provided in accordance with Subsection 24(1) of the regulation shall be in the form of a Notice of Intent to Retire. The Notice of Intent to Retire shall contain the name of the facility intending to retire an emission allowance or an ERC, and its identification number assigned to it by the operator of the Registry.

2.2.9 Notice of Retirement

Written notice of the Director's decision provided pursuant to Subsection 24(2) of the regulation shall be in the form of a Notice of Retirement, where the Director has approved the application to retire.

For ERCs the Notice of Retirement shall identify the ERC Emission Reduction Report associated with the ERC, the current holder of the ERC, and the location of the person seeking to retire the ERC.

For allowances the Notice of Retirement shall identify the original recipient of the emission allowance, the holder of the emission allowance and the location of the person seeking to retire the emission allowance.

2.2.10 Notice of Application for ERC Creation Outside the Eligibility Zone

Subsection 18(2) states that ERCs can only be created as a result of an emission reduction project undertaken in Ontario, the District of Columbia or one of the states that the subsection lists (the “Eligibility Zone”).

Subsection 18(3) of the Regulation states that credits may be created outside the area defined in subsection 18(2) if the Director is satisfied that reductions of nitric oxide emissions or sulphur dioxide emissions achieved by the emission reduction project have a measurable effect in Ontario.

The Notice of Application shall be used to notify the public that a Proponent is making an application to the Director for the creation of an ERC from an ER made outside the Eligibility Zone.

The Notice of Application must identify the ER Protocol and Emission Reduction Report originally associated with the ERs that are the subject of the application, the amount of the air quality improvement expected in Ontario, the name and address of the person who originally caused the emission reduction that resulted in the application for creation, the current applicant for creation of the ERC, the location where the ER was achieved, a description of the science upon which the application is based, and the studies which show that the emission reductions at the facility will result in the claimed improvement in air quality in Ontario.

The Notice of Application and all supporting documents shall be provided to the operator of the Registry by the person making application to the Director for the creation of the ERC. The operator of the Registry shall record the Notice of Application as required by this Code.

2.2.11 Notice of Director’s Decision Regarding ERC Creation Outside the Eligibility Zone

If the Director decides to approve the application for ERC creation outside the Eligibility Zone, he/she shall provide a Notice of Creation to the Registry, and to the applicant indicating that the application has been approved. The Registry operator shall record the Director’s decision within 7 days of receipt.

2.2.12 Notice of Voluntary Retirement

Written notice provided pursuant to Section 32 of the regulation shall be in the form of a Notice of Voluntary Retirement.

For ERCs the Notice of Voluntary Retirement shall identify the Emission Reduction Report associated with the ERC and the current holder of the ERC.

For emission allowances the Notice of Voluntary Retirement shall identify the original recipient of the emission allowance and the current holder of the emission allowance.

2.3 Registry Accounts

The operator of the Registry shall establish accounts for each Proponent and for holders of emission allowances and ERCs, as well as for holders of emission reductions from renewable energy projects and conservation projects, through a procedure determined by the operator of the Registry. Accounts shall be established in such a way that emission allowances, ERs for which application for creation as ERCs have been made, ERCs, and renewable energy project and conservation project emission reduction holdings of each holder will be kept in separate and readily identifiable accounts. Additions and removals of

emission allowances, ERs and ERCs to and from accounts shall be implemented only by the operator of the Registry upon receipt of the Notices set out in this Code.

The operator of the Registry shall ensure that each Registry account clearly identifies the name, address, phone and fax numbers, and email address of the person to whom the account has been assigned, along with the name of the prime contact person if the person to whom the account has been assigned is a company or government agency. In addition, the account must include, but is not limited to, the number of emission allowances and ERCs held, transferred and retired. The operator of the Registry must provide access to Registry files containing all documents submitted to the Registry in respect of the account holdings.

The operator of the Registry shall establish 2 Registry accounts in the name of the Government of Ontario to be used exclusively to record retired or voluntarily retired emission allowances and ERCs. There shall be a Government of Ontario account for retired and voluntarily retired emission allowances, and a Government of Ontario account for retired and voluntarily retired ERCs.

2.4 Recording Procedures

2.4.1 Document Submission

Protocols and Emission Reduction Reports shall be prepared in accordance with this Code.

The operator of the Registry will perform an administrative review of all the documents submitted in respect of the Code to ensure that the documentation is complete and in conformance with the Code, and shall record complete documentation on the Registry within 7 days of receipt. Reports that are incomplete or not completed in accordance with this Code will be returned to the Proponent for correction. Upon correction and re-submission to the Registry, the operator of the Registry will have an additional 7 days to complete the administrative review and record or return the documents.

The registry can be found on the Home Page of the web site of the Ministry of the Environment, at www.ene.gov.on.ca.

The registry is maintained at:
Air Policy and Climate Change Branch
Ministry of the Environment
135 St. Clair Ave. West
Toronto, Ontario
M4V 1P5

The registry can be reached by fax at:
416-314-4128

2.4.2 Recording

When an account is established, the operator of the Registry records pdf versions of all Protocols, Emission Reduction Reports, and all associated documents and scanned versions of all signed forms associated with an emission reduction project or holding on the Registry. Original paper copies shall be retained by the operator of the Registry for 5 years from the date of receipt of the final Emission Reduction Report submitted in respect of a Protocol.

Each Proponent and holder of emission allowances, ERCs, and emission reductions from renewable energy projects and conservation projects shall be assigned a unique identification number by the operator of the Registry. All ERCs and emission allowances recorded in each Proponent's and holder's account shall have a unique identifier assigned by the operator of the Registry. Linkages between emission allowances and the associated reports and documents shall be established by the operator of the Registry.

ERs transferred to the Registry from another jurisdiction must also conform to the process described in the Code for parties seeking to have their emission reductions used to create ERCs.

Before recording an emission allowance, the operator of the Registry must receive a Notice of Emission Allowance Distribution from the allowance recipient or written notice from the Director that the person has acquired emission allowances. The Notice of Emission Allowance Distribution shall include a copy of a letter from the Director to the emission allowance recipient informing the recipient of the allocation of the emission allowance. The operator of the Registry shall record the emission allowance in the appropriate account of the recipient within 7 days of receiving the copy of the Notice of Emission Allowance Distribution or written notice from the Director.

A Notice of Retirement shall be submitted to the operator of the Registry by the Director within 7 days of his/her decision under Section 22 of the Regulation regarding an ERC. The operator of the Registry shall amend the Registry to indicate that the retired ERC no longer exists and shall cause the retired or voluntarily retired ERC to be transferred to the ERC account of the Government of Ontario.

A Notice of Retirement shall be submitted to the operator of the Registry by the Director within 7 days of his/her decision under Section 22 of the Regulation regarding an emission allowance. The operator of the Registry shall amend the Registry to indicate that the retired emission allowance no longer exists and shall cause the retired or voluntarily retired emission allowance to be transferred to the emission allowance account of the Government of Ontario.

3. Foreign Emission Allowances

Emission allowances issued by jurisdictions other than Ontario and for which an application is being made for creation of ERCs, must meet all the requirements for ERC creation contained in the Code.

4. ERC Creation

ERs may only be proposed for creation as ERCs in Ontario by reducing emissions of NO and/or SO₂ through the implementation of an approved Standard Method. Facilities to which emission allowances have been distributed are not eligible to create ERCs from ERs that they achieve.

4.1 Standard Methods

A Standard Method is a description of a process, process change, or technology, which can be added to, or replace, a process or technology to reduce NO or SO₂ emission rates, and is approved by the Ministry for this purpose.

The Standard Method describes the reasons for the emission reductions, defines the requirements for baseline data, and defines the method for estimating or measuring reductions in emission rates, and describes the time limits on ERs that are eligible for ERC creation.

Standard Methods are set out in Appendix 1 of this Code.

Suggestions for new Standard Methods should be made to the Director, Air Quality and Climate Change, Ministry of the Environment (the "Director"). The Director may cause a review of the proposed additional or supplementary Standard Methods. The Director may also consider proposed amendments to existing Standard Methods. The Director's review shall examine and make recommendations on the scientific basis for the reduction in emission rates that can be expected from the proposed Standard Method; and on the ability to quantify and verify emission reductions.

4.1.1 Proposal for New Standard Method

Persons proposing a new Standard Method shall submit to the Director a description of the science supporting the emission reductions, and a complete step-by-step method to be used for the computation of emission reductions. The Director may cause an evaluation of the proposal to be undertaken.

All measurements, published data, algebraic formulae, and units must be shown in proposals for new Standard Methods, and the source or derivation must be given for all emission factors used. A rationale and justification for the calculation procedure must be provided in the proposal.

The proposal must demonstrate how the expected activity levels, baseline emissions, emission reductions and final actual emissions associated with an emission reduction project are calculated and tabulated annually over the expected life of the emission reduction project. Tables supporting the proposal may be addenda to the proposal.

A proposal must state the strategy and rationale for accomplishing the emission reduction, and include a complete emission reduction project description and step-by-step method to be used for the computation of emission reductions.

Proposals for new Standard Methods, once accepted by the Ministry, will be added to the Code.

4.2 Protocols and Emission Reduction Reports

Protocols and Emission Reduction Reports are two key documents used in the review, Verification, creation and recording of ERCs.

A Protocol is a document that describes a specific emission reduction project. Emission reductions must be achieved in accordance with a Standard Method being employed in order for the Director to consider the use of the ER to be eligible for creation as an ERC. All Standard Methods are set out in Appendix 1 of the Code.

Once the Protocol has been recorded on the Registry, the Proponent must submit annual Emission Reduction Reports to the operator of the Registry in order for the emission reduction to be eligible for creation of the ERC. The Emission Reduction Report shall quantify the actual emission reductions resulting from the emission reduction project described in the Protocol. An Emission Reduction Report shall document what reductions in emissions of NO and SO₂ have actually been achieved. There must be an individual Emission Reduction Report submitted for each twelve month period up to a maximum of seven 12 month periods following the completion of the emission reduction project as defined in the applicable Standard Method. ERCs must be created and quantified exactly in accordance with the methods and procedures defined in the Code. If there is a deviation from the Protocol, an amendment to the Protocol must be made by the Proponent and submitted to the operator of the Registry prior to submitting an Emission Reduction Report.

The operator of the Registry may ask questions or require the submission of additional documents from the person submitting the Protocol or Emission Reduction Report for recording on the Registry. The operator of the Registry may refuse to record a Protocol or Emission Reduction Report if it is of the opinion that any documentation is missing or incomplete, or the Proponent has failed to pay the applicable Registry application fee, if any. Information submitted by the Proponent to the Registry must be provided in the form set out in this Code. The operator of the Registry will review the Proponent's submission for completeness prior to recording it on the Registry. The operator of the Registry is not in a position to verify or warrant the truth of the Proponent's submission. The Proponent submitting the Protocol or Emission Reduction Report is solely responsible for the information provided and statements made.

The operator of the Registry shall record the Notice of Creation provided by the Director.

4.3 Verification

A Verification Report is a report prepared by a technically and professionally qualified and independent third-party. The Verification Report must indicate whether the ER is surplus, real, properly quantified and unique. The Verification Report does not guarantee that the ER will be approved for ERC creation by the Director.

The Verification Report accompanies and is part of the Emission Reduction Report.

4.4 Approval

Approval by the Director of an ER as an ERC constitutes the creation of an ERC. Approval cannot be reversed except in cases where fraud or improper ER quantification has been shown to the satisfaction of the Director to have occurred that led to the creation of the ERC.

4.5 How the Protocol and Emission Reduction Report are Used

4.5.1 Registry. The operator of the Registry will base its recording decision solely upon the required reports being complete. Clear and well-written reports, providing all necessary information and following the procedures and instructions herein, will facilitate review and Verification. The Registry is not in a position to verify the truth of every claim made.

4.5.2 Verifier. The Verifier shall use the Protocol and Emission Reduction Reports and any other documents recorded on the Registry to assess whether the Proponent has properly applied the Standard Method to the emission reduction project that is the subject of the Verification activity, including the appropriate use of measurement and predictive techniques for the method and for the emission reduction project being verified. The Verifier shall make a site visit to confirm the findings of the evaluation, or shall otherwise demonstrate to the satisfaction of the Director a knowledge or degree of familiarity with the emission reduction project that is sufficient to confirm the findings of the evaluation.

4.5.3 Director. The Director may examine Protocols, Emission Reduction Reports, Verification Reports and additional documentation in order to determine the acceptability of ERs presented for creation as ERCs.

4.5.4 Public. Members of the public may examine any document recorded on the Registry and provide the Director or the Registry with comments. A person does not have to leave their name or any other personal information, but personal information relating to that person that is provided will be recorded on the Registry and will be available to the public.

4.5.5 Notices. The operator of the Registry shall record Notices on the Registry to facilitate public review of ER verification, ERC creation, and trading activities. A description of these Notices and their requirements for submission to the Registry are contained in Section 2.2 of this Code.

4.6 General Guidelines for Submissions

Documents submitted to the operator of the Registry for recording must be written in accordance with this Code.

4.6.1 Rules and Procedures: The Regulation and the Code establish rules for ERC creation and for ERC and emission allowance retirement, and procedures setting forth, among other things, various reporting requirements to demonstrate that emissions from a facility have been balanced with ERCs and emission allowances held by that facility. The Regulation and the Code may be amended from time to time.

4.6.2 No Protection for Information: There will be no protection of the confidentiality of any information provided to the Registry for recording by the Registry or its operator.

4.7 ER Stream Limitation

ERs are eligible to be presented for ERC creation from an emission reduction project for a period of up to seven years as set out in the appropriate Standard Method.

4.8 Banking of Emission Allowances and ERCs

ERCs and emission allowances may be banked indefinitely.

4.9 Credit for Early Action

Emission reductions made between July 1, 1998 and January 1, 2000 and for which documents describing the nature of the emission reduction project causing the reductions, and the quantification of the reductions, have been submitted to the Pilot Emission Reduction Trading project (PERT) for review and registration prior to July 1, 2001, or for which evidence acceptable to the Director exists that protocol development work for the emission reductions had been started before July 1, 2001 for which documents have been submitted to PERT prior to December 31, 2001, and which also meet the requirements of the Code and the Regulation, are eligible for creation. Emission reductions made after January 1, 2000 are eligible for creation and may be recorded on the Registry if they meet the requirements of the Code and the Regulation. For emission reduction projects which commenced before January 1, 2000 the seven year ER eligibility period for ERC creation shall commence on the date the emission reduction project was completed as defined in the applicable Standard Method.

4.10 Set-Aside for Renewable Energy Projects and Conservation Projects

Specified renewable energy projects and conservation projects undertaken by a Proponent that result in reductions of emissions of NO and SO₂ from a fossil fired electricity generating facility in accordance with the applicable Standard Method shall be eligible to receive a portion of an emission allowance set-aside as described in Sections 12 and 15 of the Regulation.

Emission reductions claimed by Proponents seeking allocation of a share of the emission allowance set aside shall meet the requirements set out in this Code for ERC creation.

However, emission reductions from renewable energy projects and conservation projects shall not qualify for creation of ERCs. Verified reductions from renewable energy projects and conservation projects presented to and accepted by the Director as reductions eligible for emission allowance allocation from the emission allowance set aside shall be recorded as allowances on the Registry by the operator of the Registry as set out in this Code.

Before an emission reduction from a renewable energy project and conservation project can be submitted as a claim for an emission allowance award from the emission allowance set aside, its Protocol, Emission Reduction Report, Verification Report and other supporting documentation must be submitted to the Registry. As is the case with ERC creation, the Protocol must be recorded for at least 30 days before an Emission Reduction Report can be recorded. Upon receipt of the documentation the Registry operator shall conduct a review as described in Section 2.4. If the documentation is found to be complete, it shall be recorded on the Registry for 30 days for public review and comment.

At the end of the 30 day review period for all documentation, the parties seeking to have their emission reductions used to claim an emission allowance award from the emission allowance set aside, shall make written application to the Director by submitting to him/her all documentation supporting the claim, including, but not limited to the Notice of Intent to Create, the Protocol, the Emission Reduction Report and the Verification Report, as well as comments from the public that have been submitted to and recorded on the Registry in the course of the public review.

Within 30 days of receiving the application the Director shall either approve or reject the application to claim an award from the emission allowance set aside. Upon making his/her decision to accept or reject the application, the Director shall inform the applicant and the Registry of his/her decision within 7 days. The actual award shall be made in accordance with Sections 12 and 15 of the Regulation.

Verified emission reductions from renewable energy projects and conservation projects may be banked indefinitely until they are submitted to the Director to claim an award from the emission allowance set aside.

New NO or SO₂ sources that reduce the emissions of a fossil fired electricity generating facility through the displacement of electric power production shall not be eligible to receive a portion of the set-aside.

4.11 Baselines

The method for determining the emissions baseline for the purpose of measuring emission reductions that are eligible for ERC creation is set out in the applicable Standard Method and is based on a 12 month period.

Where the preceding 12 month period is not a representative baseline, then alternative baselines which are more representative of the typical emissions of a source should be used. An alternative baseline chosen shall be no more than the preceding 36 month period. The period chosen shall immediately precede the commencement of the activities necessary to implement the emission reduction.

If the most recent stack test was conducted prior to the preceding 36 month period, it may be used for baseline determination at the discretion of the Director if the stack test results can be shown to be representative of current emissions.

5. Preparing an ERC Protocol

A Protocol is a document that describes an emission reduction project (actions taken in accordance with a Standard Method), and explains how the emission reductions will be achieved by the application of a Standard Method to the particular emission reduction project. All emission reductions claimed by the emission reduction project must be measured, calculated and reported in accordance with the Standard Method and Protocol for that emission reduction project.

5.1 Protocol Format and Content

All Protocols submitted to the operator of the Registry follow the format set out in the Code below, and summarized by the following table of contents.

- Table of Contents
- 1. Introduction
- 2. Proponent Identification
- 3. Emission Reduction Project Description
 - 3.1 Site Description
 - 3.2 Pre-Project Conditions
 - 3.3 The Standard Method
 - 3.4 Actions Taken
 - 3.5 Post-Project Conditions
- 4. Validity of Emission Reductions
 - 4.1 Real
 - 4.2 Surplus
 - 4.3 Quantifiable
 - 4.4 Unique
 - 4.5 Verifiable
- 5. Quantification of Emission Reductions
 - 5.1 Process Description
 - 5.2 Data Collection
 - 5.3 Baseline Determination
 - 5.4 Emission Reduction Calculation
- 6. Reporting of Emission Reductions
- 7. Final Sections
 - 7.1 Documents Examined
 - 7.2 Warranties
- Addenda

Protocols submitted to the Registry contain and shall include a Notice of Intent to Create, as well as a Protocol Summary.

5.2 General Sections

5.2.1 Notice of Intent to Create

The Notice of Intent to Create shall be the first page of the Protocol. This Notice provides the information required for recording the Protocol.

5.2.2 Protocol Summary

The Protocol Summary shall contain a brief summary of each section of the Protocol as set out in the Table of Contents.

5.2.3 Table of Contents

The Table of Contents as set out in Section 5.1 above shall follow the Protocol Summary.

5.2.4 Introduction

This section shall give a brief synopsis of the facility, emission source, the Standard Method undertaken, and the kind and quantity of reductions expected over the life of the emission reduction project.

5.2.5 Proponent Identification

In this section, the facility where the emission reduction project takes place shall be identified by name, address and geographic location. This should include a legal description of the property. The names, street and email addresses, telephone and fax numbers for the Proponent, facility owner and facility operator must be provided.

5.3 Project Description

The purpose of this section is to define the emission reduction project, establish its boundaries and demonstrate that it will make an impact on emissions. Verifiers will study this section to ascertain that the actions taken clearly implement the Standard Method, and that the actions taken plausibly account for the difference between the pre and post-project conditions. The following is a description of the five subsections of the Project Description portion of the Protocol.

5.3.1 Site Description

In this section the Proponent shall describe the history, purpose and operation of the emission reduction project site. This establishes the context within which the emission reduction project takes place. Normally the site is a facility such as a manufacturing plant or commercial building, but it can also be an area such as Toronto.

5.3.2 Pre-Project Conditions

In this section the Proponent shall describe the operation, output, emission rates, and emissions of the affected process(es) and/or facilities immediately preceding the implementation of the emission reduction project. The date or time period used to characterize the pre-project conditions must be specified

5.3.3 The Standard Method

In this section the Proponent shall identify the Standard Method used to accomplish the emission reduction.

5.3.4 Action Taken

In this section the Proponent shall describe what was or will be done to implement the Standard Method at the facility including all key dates, studies and approvals. In addition the Proponent shall specify all major equipment that was or is intended to be installed.

5.3.5 Expected Post-Project Conditions

In this section the Proponent shall describe the operation, output and emissions of the affected process(s) that are expected in the period immediately following the emission reduction project as specified in the appropriate Standard Method.

5.4 Validity of Emission reductions

This section addresses the non-quantitative criteria governing the validity and eligibility of the ERs for creation of ERCs, and of emission reductions from renewable energy projects and conservation projects.

5.4.1 Real

An emission reduction is real if it results solely and specifically from the actions taken in the emission reduction project and could not occur in the absence of the emission reduction project. A real reduction produces an observable change in the emission rate of a process or facility, and does not result from a mere change in activity (such as a reduction in output).

The reduction must be a net reduction, i.e. any increase in emissions of the subject gas resulting as a direct consequence of the emission reduction project must be deducted. Emission increases that occur outside of the emission reduction project boundary are called leakages. If, for example, a process

reduces emissions at the site by outsourcing production of a component of the final product of the process, this would be leakage and would need to be netted out for the purposes of quantifying the ER claim.

Further, netting applies to the subject gas (i.e. the gas whose reduction is the purpose of the action): an increase in or leakage of a gas other than the subject gas is not leakage.

The information should establish logically that the emission reduction project produces real, net emission reductions. The sources of emission increases and leakages must be identified.

5.4.2 Surplus

An emission reduction is surplus if it is in excess of any applicable regulation, agreement, permit or control order requirement applicable in the jurisdiction in which the action is being implemented. All such requirements must be stated and briefly summarized in this sub-section. The subject facility or site must be in full compliance with all environmental requirements at the time the Protocol is submitted and reviewed.

The date, file number and issuing authority for each permit, as well as the names and offices of compliance inspectors must be provided. These persons may be contacted during the review to confirm that the site is in compliance.

5.4.3 Quantifiable

Reductions must be based on the baseline data requirements of the Standard Method being used, and the requirements of the Standard Method for the measurement of emission reductions.

5.4.4 Unique

ERs will not be eligible for creation of ERCs in Ontario if they have already been used in another emission reduction trading regime.

In this sub-section the Proponent shall describe any requirements for reporting of environmental emissions or emission reductions to authorities and shall show how credited reductions will be reported to ensure that no benefit can be obtained from the credited reductions other than through emission trade. Note that the Proponent must also warrant, in Section 7.2 of the Protocol and in each Emission Reduction Report that the emission reductions have not and will not be registered with any other emission trading program, except through valid Notices of Transfer when ERCs are moved from one registry to another. Movement from one registry to another may occur because of an ERC transfer from one jurisdiction to another.

5.4.5 Verifiable

The Proponent shall demonstrate that the data and the calculation methodology are capable of being confirmed and tested for accuracy. In that regard the Proponent shall describe all records to be retained and the step-by-step procedure that could be used by an independent third party to verify any creation made under the Protocol. Records must be maintained by the Proponent for at least five years from the date the last Emission Reduction Report in respect of a Protocol is recorded on the Registry.

5.5 Quantification of Emission Reductions

This section shall define and justify the methods and procedures to be used to measure and quantify the emission reductions resulting from the emission reduction project. The methods defined here will be used in all future Emission Reduction and Verification Reports resulting from the emission reduction project.

5.5.1 Process Description

The Proponent shall identify the Standard Method used in the emission reduction project. The purpose of this description is to define the terms and concepts needed to understand the discussion in the remainder of this section, and to show that the process conforms to the approved Standard Method for that project type.

5.5.2 Data Collection

The Proponent shall describe the instruments, measurements and data sources used in the quantification of baselines, activity levels and emission reductions.

The make, model, serial and type of each instrument must be specified. The Proponent shall describe accuracy, calibration method and frequency and quality control procedures used. For published sources such as Statistics Canada, the report number, title and source shall be given. For unpublished data sources, the organization, department and individual providing the data shall be identified. In each case the datum obtained shall be specified, along with the algebraic symbol assigned to the parameter or variable and used in the sub-sections below.

5.5.3 Baseline Determination

This sub-section shall present and justify the emission reduction project baseline. The baseline is defined as "the emissions that would be expected to occur in the absence of the emission reduction project".

Emission reductions are created when, as a result of an emission reduction project, actual emission rates are less than the baseline emission rates. The baseline determination method will be that described in the applicable Standard Method for this action.

5.5.4 Emission Reduction Calculation

The calculation method to determine the emission reductions is set out in the Standard Method. The Standard Method being used shall be identified.

5.6 Reporting of Emission reductions

In this section the Proponent shall provide a description and sample of the emission reduction calculation to be submitted with the Emission Reduction and Verification Reports.

The measurements used to calculate the emission reductions and the baseline and actual emission quantities must be indicated. The calculation must use the formulae developed and described in the Standard Method. The format in which the data are presented shall provide for data corrections (eg. for bias errors in instrument readings) and indicate the sources and the degree of uncertainty associated with the final results.

The data shall be presented in a format and in sufficient detail that the computations can be readily verified.

5.7 Final Sections

The final sections of the Protocol shall list the documents examined and provide warranty statements concerning the accuracy of the material submitted.

5.7.1 Documents Examined

The Proponent shall list all documents examined in the course of writing the Protocol, and provide a full bibliographic citation for each. Copies of all documents cited shall be retained for 5 years following the recording of the Protocol on the Registry.

5.7.2 Warranties

In this section the Proponent shall state who participated in the writing of the Protocol and associated Emission Reduction Report(s) and who takes responsibility for the statements made in them. The Proponent must attest to and sign-off on the accuracy of the Protocol and the Emission Reduction Report(s).

5.7.3 Proponent

The Proponent shall warrant that all information provided in the Protocol is true and factual and that all matters affecting the validity of the Protocol or associated ER claims, and documented in the Emission Reduction Report(s), have been fully disclosed. The Proponent shall further warrant that the ERs have not been previously used in any other emission reduction agency or program.

5.7.4 Author

Where the author of the Protocol is a person other than the Proponent, the author shall warrant that the Protocol was prepared by the author based on the author's examination of information and records provided by the Proponent; and, that the author is satisfied that the information provided is complete and correct.

5.7.5 Addenda

Any information that is too detailed or does not readily fit into the main body of the Protocol may be put in the addenda.

6. Preparing ERC Emission Reduction Reports

Emission Reduction and Verification Reports must be prepared in accordance with the recorded Protocol for the emission reduction project.

Emission Reduction and Verification Reports document the actual emission reductions achieved by an emission reduction project. Compared to Protocols, these reports describe *what* reductions were made, while the Protocol describes *how* the reductions are made. Emission Reduction Reports document emission reductions that the Proponent intends to submit to the Director for creation as ERCs as well as for emission reductions from renewable energy projects and conservation projects.

6.1 Emission Reduction Reports

Emission Reduction Reports must be prepared annually and recorded on the Registry within 180 days of the end of the 12 month reduction period for which the reductions are an application for creation as an ERC. In all cases there must be an individual Emission Reduction Report for each 12 month period for which emission reductions are claimed. Protocols and Emission Reduction Reports to support an application to create ERCs made between July 1, 1998 and the date the Regulation comes into effect as ERCs must be submitted to the Registry within 180 days of the Regulation coming into effect.

Protocols and Emission Reduction Reports supporting an application to create ERCs from emission reductions made after January 1, 2000 and prior to the date the Regulation comes into effect shall be submitted to the Registry within 180 days of the date the Regulation comes into effect.

The creation period shall be as defined in the applicable Standard Method.

6.1.1 Notice of Emission Reduction

The Notice of Emission Reduction is the first page, and as such forms part, of the Emission Reduction Report. This Notice provides the information required for recording the Emission Reduction Report

document, the creation of ERCs and their deposit into the Registry account assigned to the Proponent by the operator of the Registry.

6.1.2 Emission Reduction Summary

The Emission Reduction Summary immediately follows the Notice of Emission Reduction and as such forms part of the Emission Reduction Report. The purpose of the Emission Reduction Summary is to establish that the reductions have been correctly quantified in accordance with the Protocol and the applicable Standard Method, and that no event or change has occurred during the emission reduction period that would alter the validity of the Protocol.

The Emission Reduction Summary must demonstrate how the emission reduction project succeeded in meeting the eligibility criteria (real, surplus, unique, quantifiable, verifiable) as set out in the Code, and must disclose any matter that could affect the validity of the Protocol or its quantification methods. The Proponent must describe process, equipment, production or regulatory changes, changes in emission reduction project circumstances, or other changes that may have a bearing on the reliability of the Protocol's treatment of the eligibility criteria (real, surplus, unique, quantifiable, verifiable) in respect of the emission reduction project. If there has been a deviation from the Protocol, an amendment to the Protocol must be made.

6.1.3 Calculation Documents

The Emission Reduction Report shall document the calculations of the emission reductions. This shall include but may not be limited to spreadsheets tabulating measurements used to calculate emission reductions and the baseline, and actual emission quantities.

6.1.4 Documents Examined

The Proponent shall list all documents examined in the course of writing the Emission Reduction Report, and provide a full bibliographic citation for each. Copies of all documents cited shall be retained for 5 years following the recording of the Emission Reduction Report on the Registry.

7. Verification Reports

A Verification Report must be prepared for each Emission Reduction Report.

A Verification Report shall be prepared by a qualified and independent third-party recognized by the Ministry as being qualified to prepare Verification Reports for emission reduction projects in respect of the Regulation (the "Verifier"), who will warrant the accuracy of the information provided.

The Verification Report shall indicate whether the Verification procedure described in section 5.4.5 of the Protocol was followed; and, shall provide an analysis of that conclusion.

The Verification Report shall certify that the Verifier has personal knowledge of the emission reduction project, and that the Proponent has made proper use of the Standard Method in its application of the Standard Method to the emission reduction project that is the subject of the Verification activity. This shall include the appropriate use of measurement and predictive techniques for the Standard Method and for the undertaking being verified. The Verifier must also demonstrate that s/he is qualified to verify ERs.

The Verifier shall not currently be or have been within six months of submission for Verification an employee of the party seeking Verification of the ER, the ER creator or any other previous owner of the ER, a competitor of the ER creator, or a competitor of the party seeking Verification of the ER, or an employee of any entity or person who has prepared the Protocol or the Emission Reduction Report.

The Verification Report contains the Verifier's assessment of whether the ER claimed was the result of actions taken in accordance with the appropriate Standard Method, Protocol, and Emission Reduction

Report and any other supporting documentation recorded on the Registry. The Verification Report must indicate whether the ER is surplus, real, properly quantified and unique. The Verification Report does not guarantee that the ER will be approved as an ERC by the Director.

Appendix 1:
Standard Methods

Standard Method #1: NO Emission Reduction Credits (ERCs) from Installation of Low-NOx Burners on Electricity Generators

General Description

Low NOx burners are typically designed to reduce NO production in boilers. This is accomplished by controlling air/fuel mixing and thus, affecting combustion reactions.

During initial combustion, sub-stoichiometric volumes of air are used. Molecular nitrogen (N₂) rather than NO is formed from the fuel nitrogen. The secondary air is added and mixed in such a way that local zones of excess air that promote NO formation are minimized. Low NOx burners also increase combustion times and allow for more heat transfer from the flame. This leads to a cooler flame and reduced production of thermal NO reactions.

Reduction in NO emission may be achieved by combining low NOx burners with air staging in the furnace. In this case, the burners operate at reduced air/fuel ratios, partly sub-stoichiometrically, and the remaining combustion air is added through the overfire ports in the upper part of the furnace.

Low NOx burners can be designed so that the controlled air/fuel mixing is achieved by using separate air resisters. A fuel-rich flame core is formed in the first combustion zone as only the amount of air required for stable ignition and combustion is supplied with the fuel. A portion of the secondary air enters through the annulus surrounding the central fuel/primary air stream, and the remaining secondary air is supplied through the second outer annulus.

Burner modifications are generally referred to as LNB technology, while the other modifications are referred to as combustion process modifications (e.g., overfire air, pulverizer modifications, etc.). For the purpose of this method, they are collectively referred to as LNBS.

Baseline

Baseline NO emissions data shall be derived from stack tests conducted prior to the installation of LNBS, or from Continuous Emissions Monitoring systems (CEMs). Actual emissions during the generation period shall be measured using stack tests or CEMs. The calculation of NO ERs shall utilize a regression analysis which compares NO emissions per megawatt.

MEASUREMENT OF NO REDUCTION

Where emissions of NO have been measured as NO₂, they must be converted to NO by dividing by 1.5333.

Summary

The equation for calculating ERs under this Standard Method shall be:

$$\text{ERs} = (\text{Baseline Emissions Rate} - \text{Actual Emissions Rate}) * \text{Actual Activity}$$

where,

- Baseline Emissions Rate is the nanograms (ng) of NO per joule (J) of heat input during the baseline period.
- Actual Emissions Rate is the ng of NO per J of heat input during the generation period, and
- Actual Activity is the J of heat input during the generation period.

Data for this reduction estimate is hourly, so the reductions for each hour are calculated and summed to obtain the total ERCs created during the generation period.

NO emissions are greatly affected by the percent operating capacity at which a fossil combustion unit is running. To calculate ERs it is necessary to compare the actual emissions at a given operating level with the baseline emissions at the same operating level. To facilitate this comparison, a best-fit regression equation shall be derived from the baseline data to compute the average NO emissions rate at a given power output in MW. The actual data are comprised of both emissions rates and the power output. The actual emissions rate is subtracted from the baseline emissions rate, which is calculated from the regression equation using the actual power output.

Timeframes

NO ERs that are eligible to be created as ERCs can be created for up to 7 years from the date the facility comes back into normal service following the completion of the emission reduction project to install the low NOx burners and a commissioning period of no more than 6 months. This is commonly known as the in service date.

The first ER period shall consist of the 12 month period immediately following the in service date. Subsequent ER periods shall consist of the 12 month period immediately following the first, second, third, fourth, fifth, and sixth anniversary dates of the in service date of the emission reduction project that caused the ERs.

Standard Method #2: SO2 Emission Reduction Credits from Fuel Switching at Electricity Generating Stations

General Description:

Different fuels contain different concentrations of sulphur. When burned, fuels which contain sulphur form SO₂ which is typically released as a combustion product. Where an electricity generating station switches to fuels which have lower sulphur levels, SO₂ emissions rates per unit of electricity produced can be reduced.

Baseline Data:

Hourly data describing SO₂ emissions per Megawatt output must be determined either by direct measurement, or through other emissions monitoring of equivalent accuracy. Regression must be undertaken to establish a representative emissions rate at each level of output from the plant for the 12 month period prior to the fuel switching .

Measurement of SO2 Emission Reduction Credit.

The equation for calculating ERs under this Standard Method shall be:

$$ERs = (\text{Baseline Emissions Rate} - \text{Actual Emissions Rate}) * \text{actual activity}$$

where:

- S the Baseline Emissions Rate is the nanograms (ng) of SO₂ per Megawatt output from the plant
- S the Actual Emissions Rate is the ng of SO₂ per Megawatt output from the plant
- S the activity level is the megawatt output of the plant over the generation period

Data for the emissions reduction estimate is hourly, so the reductions for each hour are calculated and summed to obtain the total ERs created during the generation period.

SO₂ emissions rates are greatly affected by the percent operating capacity at which the generating station is running. To calculate ERs it is necessary to compare the actual emissions at a given operating level with the baseline emissions at the same operating level. A best fit regression equation shall be derived from baseline data to compute the average SO₂ emissions rate at a given output in MW. The actual data are comprised of both emissions rates and the power output. The actual emissions rate is subtracted from the baseline emissions rate, which is calculated from the regressions equation using the actual power output.

Time limitations.

ERs which are eligible to be created as ERCs can be created for up to 7 years from the date the facility comes back into normal service following the completion of the emission reduction project to install the equipment which allows the fuel switching. This is commonly known as the in service date.

The first ER period shall consist of the 12 month period immediately following the in service date. Subsequent ER periods shall consist of the 12 month period immediately following the first, second, third, fourth, fifth, and sixth anniversary dates of the in service date of the emission reduction project that caused the ERs.

Appendix 2:
**Renewable Energy
and
Conservation projects**

RENEWABLE ENERGY

Renewable Energy Project

In order for a renewable energy project to be eligible for an award of NO emission allowances under Section 12 of the Regulation or of SO₂ emission allowances under Section 15 of the Regulation a project must:

- Be the result of construction that began after January 24, 2000.
- Be located in the province of Ontario.
- Produce electricity which is delivered into the IMO-controlled grid using one or more of the following methods:
 - ▶ photo-voltaics
 - ▶ wind turbines
 - ▶ run of river hydro-electric
 - ▶ new hydro-electric power from existing dams (projects which produce no increase in reservoir size).

Measurement of Production

Electricity production shall be metered and reports shall be produced which indicate the electricity delivered into the IMO controlled grid in the periods defined in Schedule 1 of this Appendix. Estimation techniques to estimate electricity production in the required periods based on measured electricity production shall be allowed if they can be demonstrated to account for greater than 95% of the data variation.

NO and SO₂ Displacements

- NO and SO₂ displacement shall be calculated using NO and SO₂ electricity intensities published in Schedule 2 to this Appendix. Displacement calculations must be for a full 12 month period.
- NO displacements shall be D where D is the sum across all hours of D_i , and

$$D_i = E_i \times K_i$$

where D_i = displacement of NO in hour i
E_i = is the electricity production in hour i
K_i = is the NO intensity for hour i

- SO₂ displacements shall be D where D is the sum across all hours of D_i , and

$$D_i = E_i \times K_i$$

where D_i = displacement of SO₂ in hour i
E_i = is the electricity production in hour i
K_i = is the SO₂ intensity for hour i

Timeframes

- An award of NO and SO₂ emission allowances under Section 12 or Section 15 of the Regulation can be claimed for energy production for up to 7 years after the project has been placed in normal service. Being placed in normal service is the commissioning date, or in-service date.
- An award of NO or SO₂ emission allowances under Section 12 or Section 15 of the Regulation must be based on displacement during a 12 month period starting on the in-service date and the anniversaries of that date.

CONSERVATION PROJECTS

Conservation Project

In order for a conservation project to be eligible for an award of NO emission allowances under Section 12 of the Regulation or of SO₂ emission allowances under Section 15 of the Regulation, the project must:

- Begin after January 24, 2000.
- Be located in the province of Ontario.
- Reduce the use of electricity purchased or received from the IMO controlled grid through the implementation of energy efficiency measures that reduce the consumption of electricity received from the IMO controlled grid.

Measurement of Electricity Savings

Electricity savings shall be determined in accordance with section 3.4.2 (Option B) and section 3.4.3 (Option C) of the 2001 version of the International Performance Measurement and Verification Protocol (IPMVP), Volume 1, and shall be eligible for an award of allowances from the allowance set aside for a period of 7 years after the project is completed.

The IPMVP was sponsored by the United States Department of Energy. It is available as follows:

electronically at <http://www.doe.gov/bridge>

hard copy (for a fee) from: U.S. Department of Energy
Office of Scientific and Technical Information
P.O. Box 62
Oak Ridge, Tennessee 37831-0062
Phone: 865-576-8401
Fax: 865-576-5728
E-mail: reports@adonis.osti.gov

and from (for a fee)

United States Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22161
Phone: 800-553-6847
Fax: 703-605-6900
E-mail: orders@ntis.fedworld.gov
Online ordering: <http://www.ntis.gov/ordering.htm>

NO and SO₂ Displacements

- NO and SO₂ displacements shall be calculated using electricity savings, displacement calculations as shown below and NO and SO₂ electricity intensities appropriate to the time frame. For an example of reasonable electricity intensities for the year 2000, see Schedule 2 to this Appendix. Displacement calculations must be for a full 12 month period.
- NO displacements shall be $D = \sum D_i = \sum E_i \times K_i$
where D_i = displacement of NO in hour i
 E_i = is the electricity saving in hour i

K_i = is the NO intensity for hour i

- SO₂ displacements shall be $D = D_i = E_i \times K_i$
where D_i = displacement of SO₂ in hour i
 E_i = is the electricity saving in hour i
 K_i = is the SO₂ intensity for hour i

Timeframes

- An award of NO and SO₂ emission allowances under Section 12 or Section 15 of the Regulation can be claimed for energy conservation for up to 7 years after the project has been placed in normal service. Being placed in normal service is the commissioning date, or the in-service date.
- An award of NO or SO₂ emission allowances under Section 12 or Section 15 of the Regulation must be based on conservation during a 12-month period starting on the in-service date and the anniversaries of that date.

SCHEDULE 1,
CONSERVATION AND RENEWABLE ENERGY PROJECT - MEASUREMENT PERIODS

Winter 1	January 1 to March 1
Spring	March 2 to May 31
Summer	May 31 to September 30
Fall	October 1 to November 30
Winter 2	December 1 to December 31
The amount of electricity conveyed into the grid between - Day 7 AM to 6:59 PM ¹ Night 7 PM to 6:59 AM ²	

¹ Monday to Friday, excluding statutory holidays

² All other times

SCHEDULE 2,
NO AND SO₂ DISPLACEMENT CO-EFFICIENTS

<u>NO Intensity (kg/MWh)</u>		
Period	Day	Night
Winter 1	1.3	1.1
Spring	1	0.8
Summer	1.1	1
Fall	1.2	1.1
Winter 2	1.3	1.1

<u>SO₂ Intensity (kg/MWh)</u>		
Period	Day	Night
Winter 1	5	4
Spring	3	2
Summer	4	3
Fall	3.5	2.5
Winter 2	5	4