

PROJECT AGREEMENT

FOR

INTERNATIONAL COLLABORATION

ON

CO₂ OCEAN SEQUESTRATION

This Project Agreement is entered into among the Federal Energy Technology Center (FETC) of the Department of Energy of the United States of America, the New Energy and Industrial Technology Development Organization (NEDO) of Japan, and the Research Council of Norway (NRC) (collectively the "Parties").

WHEREAS, in 1995 member countries of the International Energy Agency and the Organization for Economic Cooperation and Development created the Climate Technology Initiative (CTI);

WHEREAS, the CTI seeks to support the objectives of the United Nations Framework Convention on Climate Change by increasing the use of existing climate-friendly technologies and developing new and improved climate-friendly technologies through the promotion of international cooperation in research, development, deployment and information dissemination;

WHEREAS, an objective of CTI's Task Force 7 is to enhance international collaboration in research and development in greenhouse gas capture and disposal, including research on ocean sequestration of CO₂; and

WHEREAS, the CTI's Task Force 7 invites the Parties to explore on an international collaborative basis the technical feasibility and environmental impact of CO₂ ocean sequestration, in order to advance current knowledge of the behavior of discharged CO₂ in the ocean;

NOW THEREFORE, the Parties agree as follows:

Article 1 **Objective of the Project**

The objective of the international collaboration project on CO₂ ocean sequestration (the "Project") is to investigate the technical feasibility of, and improve understanding of the environmental impacts of, CO₂ ocean sequestration in order to minimize the impacts associated with the eventual use of this technique to reduce greenhouse gas concentrations in the atmosphere.

Article 2
Scope of Work

To advance current knowledge of the behavior of discharged CO₂ in the ocean, joint research shall be undertaken which mainly focuses on dissolution-type CO₂ discharge experiments conducted at an ocean site. In this joint research, a CO₂ injection system will be constructed and operated to observe near-field phenomena such as droplet plume dynamics and subsequent peeling and intrusion of enriched water. This joint research shall be conducted within the estimated cost of the Project as described in Article 9.

Article 3
Work Program

The program of work for the Project (hereinafter the "Work Program") shall be as follows:

- (1) Selection of the most suitable site for the ocean field experiments.
- (2) Determination of the discharge depth, rate, timing, and duration of experiments.
- (3) Design of facilities for CO₂ storage, transport and discharge.
- (4) Selection of the items to be measured and monitored in experiments.
- (5) Preparation and testing of equipment for measurement and monitoring.
- (6) Construction of CO₂ storage, transport and discharge facilities.
- (7) Carrying out of ocean field experiments.
- (8) Analysis of data acquired during experiments.
- (9) Collation of overall results obtained in the field experiments.
- (10) Formulation of a proposal for the next phase of the Project.
- (11) Other activities as may be mutually agreed by the Parties in writing.

All Parties shall cooperate with one another to promote the Work Program.

Article 4
Parties and Other Organizations

- (1) Upon the approval of the Steering Committee (described in Article 6), participation

Article 6
Steering Committee

- (1) A committee consisting of one representative of each Party (hereinafter the "Steering Committee") shall be established to manage the overall direction and scope of the Project and to consider and approve the participation of other organizations in the Project.
- (2) The Steering Committee shall be responsible for resolving any misunderstandings or problems related to this Project Agreement or the Project based on the principles of mutual benefit, equality, cooperation and trust.
- (3) The Steering Committee shall hold its first meeting within one (1) month of the execution of this Project Agreement to establish duties, policies and procedures for implementing the Project. Following the first meeting, the Steering Committee shall meet approximately once a year at a place mutually agreed by all of the members.

Article 7
Technical Committee

- (1) The Parties shall establish a Technical Committee consisting of up to three (3) representatives appointed by each Implementing Research Organization, to formulate the annual Work Program for each year of the Project, to supervise its technical aspects and execution, and to consult about the treatment of intellectual property.
- (2) The Technical Committee shall also be responsible for managing the budget for implementing the Work Program and coordinating any optional research studies which may be undertaken during the Project.
- (3) The Technical Committee shall report to the Steering Committee at least twice a year regarding the implementation of the Work Program for each year of the Project.

- (4) The specific functions of the Technical Committee shall be set forth in the annual joint research agreements among the Implementing Research Organizations.

Article 8
Project Fiscal Year

The Parties agree that the fiscal year of the Project shall extend from April 1st to March 31st of the following year.

Article 9
Cost Contributions

The total estimated cost of the Project is Three Million Eight Hundred Thousand U.S. Dollars (US\$3,800,000). Subject to the availability of appropriated funds and appropriate authorizations by their respective governments, the Parties agree to share the cost of the Project as follows:

FETC	NEDO	NRC
US\$850,000	US\$2,600,000	US\$350,000
(22.4%)	(68.4%)	(9.2%)

Article 10
Treatment of Project Results

Basic policy regarding the use and protection of research data and intellectual property resulting from Project activities shall be determined through mutual discussion and agreement of the Parties. Specific details concerning the treatment of project results shall be included in the annual joint research agreements provided for under Article 5.

Article 11
Waiver of Claims for Damages

In the event of any material damage or loss of life due to an accident or any reason other than willful misconduct or gross negligence during the implementation of the Project, no compensation shall be claimed by any Party against any other Party or against the Implementing Research Organizations.

Article 12
Amendment of this Agreement

In the event the Steering Committee determines that it is necessary to amend this Project Agreement, it may be amended by written agreement of the Parties.

Article 13
Mutual Trust and Cooperation

- (1) Each Party shall endeavor, in the spirit of mutual trust, to resolve any difficulties or misunderstandings which might arise concerning the Project or this Project Agreement.
- (2) Each Party shall conduct the collaboration under this Project Agreement in accordance with the applicable laws and regulations under which each Party operates.
- (3) Any questions arising in connection with the interpretation or implementation of this Project Agreement or anything not specified herein shall be promptly discussed through mutual consultation among the Parties.

Article 14
Responsibility for and Use of Information

- (1) The Parties support the widest possible dissemination of information generated by

Project activities. Such information may be available for public dissemination at the discretion of the Parties, subject to the need to protect proprietary information in accordance with Article 14 (2).

- (2) The Parties shall take such necessary measures as they may consider appropriate to protect proprietary information. For the purposes of this Article, proprietary information shall include information of a confidential nature such as trade secrets and know-how (for example, computer programs, design procedures and techniques, chemical composition of materials, or manufacturing methods, processes or treatments) which:
 - (i) is not generally known or publicly available from other sources;
 - (ii) has not previously be made available by the owner to others without obligation concerning its confidentiality; and
 - (iii) is not already in the possession of the recipient without obligation concerning its confidentiality.

It shall be the responsibility of each Party supplying proprietary information to identify the information as such and to ensure that it is marked "Proprietary Information."

- (3) Information transmitted by one Party to another Party shall be accurate to the best knowledge and belief of the transmitting Party, but the transmitting Party does not warrant the suitability of the information transmitted for any particular use or application.

Article 15

Effective Date, Extension, and Termination

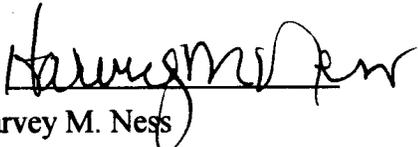
- (1) This Project Agreement shall be effective from the date of its signing by all Parties through March 31, 2002, unless extended or terminated.
- (2) By mutual written agreement, the Parties may extend this Project Agreement for

additional periods.

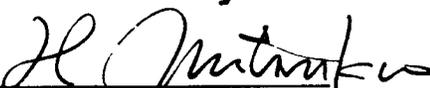
- (3) The Parties may by mutual written agreement terminate this Project Agreement at any time.

IN WITNESS WHEREOF, each Party has executed this Project Agreement on the date indicated, with each Party to retain one (1) full executed copy.

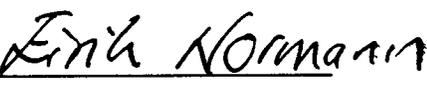
Federal Energy Technology Center
Department of Energy
United States of America

Signature: 
Name: Harvey M. Ness
Title: Director, Power and Environmental Systems
Date: December 4, 1997

New Energy and Industrial Technology
Development Organization
Japan

Signature: 
Name: Hiroshi Mitsukawa
Title: Executive Director
Date: December 4, 1997

Research Council of Norway
Norway

Signature: 
Name: Eirik Normann
Title: Assistant Director
Date: December 4, 1997