# Required Infrastructure Improvements

## **Outside Plant Battery Limits**

CO<sub>2</sub> Capture Facility

Kårstø, Norway

#### **Bechtel Proprietary and Confidential**

© 2008 Bechtel Overseas Corporation. All rights reserved. Bechtel Confidential. Contains information that is confidential and proprietary to Bechtel and may not be used, reproduced or disclosed in any format without Bechtel's prior written permission. This document is prepared exclusively for Gassnova in connection with the preparation of the FEED study for the CO<sub>2</sub> Capture Facility at Karsto, Norway, and is not to be relied upon by others or used in connection with any other project.

|      | Τ΄                       | 1                  |    |                     |                                  | T    |            |      |
|------|--------------------------|--------------------|----|---------------------|----------------------------------|------|------------|------|
| 0    | 5 Dec 08                 | Issued for Comment |    | Ruas                | SEN                              | 1.10 | WH         |      |
| Rev. | Date Reason for Revision |                    | Ву | Check               | App                              | App  | Client     |      |
|      |                          |                    |    | Job No. 25474       |                                  |      |            |      |
| 6    | Bechtel                  |                    |    | Document No.        |                                  |      |            | Rev. |
|      | Overseas                 |                    |    | 25474 –             | 25474 - 000 - 30Y - C01G - 00002 |      |            |      |
|      | Corporation              |                    |    | PAGE 1 of 3         |                                  |      |            |      |
|      | GAS                      | SSNOVA             | _  | o. – Originator – D |                                  | •    | Serial No. |      |

### **Contents**

| <u>Section</u>                  | <u>Page</u> |
|---------------------------------|-------------|
| 1.0 Introduction                | 3           |
| 2.0 Infrastructure Improvements | 3           |
| 3.0 Conclusion                  | 3           |

# Required Infrastructure Improvements Outside Plant Battery Limits

### 1.0 INTRODUCTION

The purpose of this document is to provide a description of required infrastructure improvements outside CO<sub>2</sub> Carbon Capture and Compression (CCC) plant battery limits, as required by Fichtner document 10112936-FI-B-CON-0012, REV 04, dated 09 June 2008, "Appendix A2 – Explanations Deliverables", Section 11.17.

### 2.0 INFRASTRUCTURE IMPROVEMENTS

The CCC plant will use two CO<sub>2</sub> Absorber towers, which are approximately 12m in diameter (taking into account external nozzles). Due to the size of each tower, the heavy haul transporter used to transport these towers to the site will require a heavy haul turning radius of 15m.

In order to accommodate this transporter during its delivery of the towers, sufficient horizontal clearance shall be provided in the form of a temporary access haul road. This road will extend 8m past the fence line on the North side of the site and will continue an additional 36.5m beyond the planned east boundary. In addition, a crane staging area will be required beyond the boundary adjacent to the CO<sub>2</sub> Absorber No. 1 (N4967, E20624.72). A layout of the temporary haul access road can be found on the "Construction Facilities" drawing (Drawing No.CO-0000-00001).

The temporary haul access road shall be level with the CCC plant access road as well as meet the loading requirements described in the "Design Philosophy and Acceptance Criteria for Civil Works."

### 3.0 CONCLUSION

Based on preliminary design information no additional improvements outside the battery limits will be required other than the temporary haul access road described in section 2.0 of this document.