

**SOCIALIST REPUBLIC OF VIETNAM
MINISTRY OF TRANSPORT
PROJECT MANAGEMENT UNIT No. 85 (PMU85)**



CONTRACT No. 05/HVT/2001

110/22kV SUBSTATION AND 110kV TRANSMISSION LINE

FOR

HAI VAN PASS TUNNEL CONSTRUCTION PROJECT

(OECD Loan Agreements No. VNIV-5 and VNVI-5)

TAKING - OVER CERTIFICATE

12 December 2003

**JOINT VENTURE OF
NIPPON KOEI CO., LTD. and LOUIS BERGER INTERNATIONAL INC.
in association with
TRANSPORT ENGINEERING DESIGN INCORPORATION**

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HAI VAN PASS TUNNEL PROJECT

Joint Venture of
NIPPON KOEI CO., LTD., JAPAN and
LOUIS BERGER INTERNATIONAL INC., USA
In association with
TRANSPORT ENGINEERING DESIGN
INCORPORATION (TEDI), VIETNAM

Project Office in Danang, Vietnam
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Danang City, Vietnam
Tel.: (84)-511-841924, -841925
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Ref. No. PK5-195 - 03
Date December 12, 2003

To:

Mr. Evan Lagerquist, Project Manager, ABB Oy, KINDEN Corporation and 0511-897-235
VINAINCON

Copy to:

Mr. Nguyen Ngoc Tran, General Director, PMU85 038-834-705
Mr. Nguyen Ngoc Canh, Project Manager, PMU85
1) RT4, 2) File

SUBJECT: CONTRACT PACKAGE-V: 110/22 KV SUBSTATION AND 110 KV TRANSMISSION LINE
Issuance of Taking-Over Certificate

Dear Sir,

We refer to Agreement of Minor Outstanding Items dated 11 December, 2003, indicating that you consider the whole of the Works excluding Variation Order No. 1 (VO No. 1) to have been substantially completed.

We agree the whole of the Works with the exception of VO No. 1 to be substantially complete and hereby issue our certificate of completion, stating the date of completion as being December 12, 2003 pursuant to Sub-Clause 29.1 of the General Conditions of the Contract.

Sincerely yours,

For and on behalf of
The Engineer

Ichizuru Ishimoto
Project Manager

Encl.: Taking-Over Certificate for Package-V: 110/22 kV Substation and 110 kV Transmission Lines

TAKING - OVER CERTIFICATE

Contract No. :05/HVT/2001 dated September 15, 2001

Addendum No. :No. 1 dated January 20, 2000; No.2 dated January 20, 2000;
No. 3 dated February 4, 2000; No. 4 dated February 17, 2000.

Contractor :Joint Venture of ABB - Kinden Corporation -VINAINCON

Title : HAI VAN PASS TUNNEL CONSTRUCTION PROJECT

Scope of Work :110/22 kV SUBSTATION AND 110 kV TRANSMISSION LINE

We hereby certify that the above Works: comprising Contract No. 5/HVT/2001 dated September 15, 2001 and Addendum Nos. 1, 2, 3 and 4 between Project Management Unit No. 85 (PMU85), the Employer, and Joint Venture of ABB -Kinden Corporation -VINAINCON, the Contractor, have been substantially completed and have satisfied the requirements prescribed by the Contract with the exception of Variation Order No.1 (VO No.1), and the Contractor has given a written undertaking to finish with due expedition any outstanding work during the Defects Liability Period. The Defects Liability Period of 365 days shall commence on the energization of one transmission line and the substation or the 1st April 2004, whichever is earlier with the exception of GIS equipment supplied under Specification Section 16245 High Voltage Switchgear and Section 16345 Medium Voltage Switchgear. The Defects Liability Period of five (5) years for GIS integrity and performance of equipment supplied under Specification Sections 16245 and 16345 of Contract shall commence on the effective day of this Certificate, December 12, 2003.

This Certificate is issued under Sub-Clause 29.1 of the General Conditions of the Contract.

The first monies of Retention Money shall be paid to the Contractor in accordance with Sub-Clause 33.6 of the Section 8 Part II - Special Conditions of the Contract. This Certificate does not relieve the Contractor of the responsibility to undertake the proper repair, replacement and completion of outstanding work to the complete satisfaction of the Engineer.

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PROJECT MANAGEMENT UNIT NO. 85 (PMU85)**

This Certificate shall not relieve the Contractor of any of his obligations under the Contract nor shall it constitute a waiver of any of the Employer's rights under the Contract. The Contract shall not be considered as completed until Defects Liability Certificates shall have been signed by the Engineer and issued to the Contractor stating the date on which the Contractor shall have completed his obligations to execute and complete the Works and remedy defects therein to the satisfaction of the Engineer.

The items of work, inter alia, associated with this Taking-Over Certificate, which remain to be completed, to the approval of the Engineer, during the period of the works of VO No.1, are shown in the attached "PART 3: Agreement for Minor Outstanding Items".

For and on behalf of
The Engineer

JOINT VENTURE of ABB-
KINDEN CORPORATION - VINAINCON

For and on behalf of
The Employer

PROJECT MANAGEMENT UNIT NO. 85

Evan Lagerquist
Project Manager

Nguyen Ngoc Tran
General Director

For and on behalf of
The Engineer

NIPPON KOEI CO. LTD AND
LOUIS BERGER INTERNATIONAL INC,
IN ASSOCIATION WITH
TRANSPORT ENGINEERING DESIGN
CORPORATION

Ichizuru Ishimoto
Project Manager

AREEMENT FOR MINOR OUTSTANDING ISSUES
FOR
TAKING-OVER OF THE WORKS
OF
CONTRACT PACKAGE-V:
110/22 KV SUBSTATION AND 110 KV TRANSMISSION LINE
UNDER
HAI VAN PASS TUNNEL CONSTRUCTION PROJECT

Date: December 11, 2003

Place: Employer's and Engineer's South Office,
Danang City, Vietnam

Pursuant to Sub-Clause 29.1 of the General Conditions of the Contract, the representatives of the all parties, the Employer, the Engineer and the Contractor, said Taking-Over Committee, have carried out the site inspection and the documents checking in order to confirm substantially completed status of the whole of the Works.

The site inspection was carried out at the 110/22 kV Substation, said OCC Building, and along the 110 kV Transmission Line on 8 December 2003.

The documents checking was carried out for the following documents at the conference room of the Employer's and the Engineer's South Office on 11 December 2003.

- 1) Updated Snag List for Electrical Equipment based on the joint inspection on 8 December 2003,
- 2) Updated Snag List for OCC Building based on the joint inspection on 8 December 2003,
- 3) Updated Snag List for Transmission Lines based on the joint inspection on 8 December 2003,
- 4) Updated Snag List for Furniture based on the joint inspection on 8 December 2003,
- 5) List of Taking-Over Documents
- 6) List of As-Built Drawings
- 7) Overall Taking-Over Schedule
- 8) Status Report of Electrical Equipment
- 9) Status Report of Other Works
- 10) Supply List of Training Materials

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PROJECT MANAGEMENT UNIT NO. 85 (PMU85)

In conclusion of the above site inspection and the documents checking, all parties agreed that the followings are outstanding items which the Contractor shall complete during the period of the works of Variation Order No.1.

- 1) Installation, Testing and Commissioning of Electrical Equipment as shown in Appendix – A (2 pages)
- 2) Completion of the OCC Building works as shown in Appendix – B (2 pages)
- 3) Completion of the 110 kV Transmission Line works as shown in Appendix – C (1 page)
- 4) Installation of Furniture at OCC Building as shown in Appendix - D (2 pages)

Taking-Over Committee shall carry out a site inspection to check the above items in time to time upon the official request by the Contractor and update the snag list fairly and timely. After the completion of all the times, the Engineer shall submit the completion certificate for the outstanding works subject to the Employer's consent.

This agreement is made in three copies in same value and each party shall keep one.

For and on behalf of
The Engineer

JOINT VENTURE of ABB-
KINDEN CORPORATION - VINAINCON

For and on behalf of
The Employer

PROJECT MANAGEMENT UNIT NO. 85

Evan Lagerquist
Project Manager

Nguyen Ngoc Canh
Deputy General Director

For and on behalf of
The Engineer

NIPPON KOEI CO. LTD AND
LOUIS BERGER INTERNATIONAL INC,
IN ASSOCIATION WITH
TRANSPORT ENGINEERING DESIGN
CORPORATION

NIPPON KOEI CO. LTD AND
LOUIS BERGER INTERNATIONAL INC,
IN ASSOCIATION WITH
TRANSPORT ENGINEERING DESIGN
CORPORATION

Ichizuru Ishimoto
Project Manager

Colin Window
Resident Engineer

SUMMARY SNAG LIST FOR ELECTRICAL EQUIPMENT

Pay Item	Equipment		Snag	Room No.
16120	Cables and wires		Terminate fibre optic cable in GIS room Test 110 kV cables Test 22 kV cables	
16140	Wiring Devices		Provide electrical plugs (British style) as loose items equal to number of sockets	
16220	Power Transformer	MT1	Bushings: Trapped air to be released in connection with oil filling Purify oil and top up Transformer with insulating oil Air breathers: Add oil too main tank breather Control cable incomings to be corrected in tap changer 110 kV cable termination earthing missing Tap changer box, repair paint to be done Demonstrate parallel operation of Power Transformers	101
		MT2	Bushings: Trapped air to be released in connection with oil filling Purify oil and top up Transformer with insulating oil Tape changer remote indication and control to checked later again Control cable incomings to be corrected 110 kV L1 cable termination earthing to be connected 110 kV L3 cable termination earthing missing	102
16245	High Voltage Switchgear	Diff Relay E01, E05	Add wire from 22 kV bus-copper, indicating parallel operation and test parallel operation	103
		Diff Relay E00 BB2	Replace defective relay in 110 kV GUS busbar protection panel and test	103
		E01, E02, E03, E04, E05	The following tests shall be carried out for all CT, VT: - Insulation test - Ratio test - Voltage test	103
16270	Transistion Yard	Transition Yard Transmission Line	Transition yard to be completed Complete Transmission Line snag list	
16320	Station Auxiliary Transformer	AT1, AT2	Change rating plate to English Connect the second grounding terminal with bare copper	106, 107
16345	Medium Voltage Switchgear	Comiss insp2 22 kV	Field installed CT:s steel frame to earthed 22 kV switchgear earthing to earthed whit second copper wire 22 kV cable incoming to sealed properly Bays J02 and J09 field installed CT wire routing to be corrected Add pad-locks to VT disconnectors Add Bay identification labels on front of panel Tighten the earth wire connections 22kV busbar to be tested (to be done by EVN) After CT-check add missing CT-labels	104
16425	Low Voltage Switchgear	Main AC-board	Switchgear cleaning T1 and T2 Tap changer label text to be corrected F31 terminal covers to be fixed Bay 04 steel cover to be fixed Elevator feeder label to be changed, to spare Grounding bar spare terminals to tighten Bus coupler bay the grounding bar to be installed on level Bay "12" Labeling to be changed to indicate separate UPS secured board, and clearly indicate which MCCB is the incomer Switchgear top cover to be put on alignment Switchgear to be bolted to steel structure Complete and test all LV Switchboard repairs/modifications when agreed as agreed between PMU, Engineer and Contractor	108
		DB1, DB2	Cable channel incoming to be sealed properly	117, 201

SUMMARY SNAG LIST FOR ELECTRICAL EQUIPMENT

Pay Item	Equipment		Snag	Room No.
16510	Interior Lighting		Complete small items - lighting as detailed on building inspection sheets	
16610	UPS	Main UPS	Add identification label on the UPS and for the battery Cleaning Bonding straps for the door to be installed Bolt the cabinet to the steel structure 2nd floor UPS steel covers to be fixed Install a bare copper grounding wire	105
16620	Diesel Generators		Diesel generator fuel tank vent cap missing (total of 2) Diesel spill tank drain drain line to be identified outside building (total of 2)	109 110
16630	Battery-charger System	Fuse boxes	Battery fuse boxes: Holes to be sealed	114
		Batteries	Battery room and battery rack cleaning	114
16630	Rectifier		Cleaning Use insulating tape in cables that have cable-plugs Bolt the cabinet to the steel structure Put a steel plate in the bottom back section Install a bare copper grounding wire, also for the change-over panel Install labels to indicate the used fuse ratings In the change-over panel change the label 1-0-2, to indicate Automatic operation-no output-Manual feed from AC-board busbar 2	105
16630	DC-board		Install a bare copper grounding wire Add following labels to panels front-doors: Out-going MCB:s, Inverter outgoing, Rectifier incoming feed MCCB	105
16660	Earthing and Lighting Protection Systems		Building lighting protection system to be completed Finncoil radiators on roof to be frame earthed Check tightness of all earth bar/grid bolt/nut connections	302
16720	Fire alarm, Detection and Suppression System		Complete Fire detection and alarm system and test	
16910	Inverter		Inverter 2 found to be broken, will be replaced by new one Cleaning Use insulating tape in cables that have cable-plugs inside the inverter Bolt the cabinet to the steel structure Put a stainless steel plate in the bottom back section Fuse-link protective cover missing Install a bare copper grounding wire Replace defective Inverter section in Inverter unit	105
16910	Distribution Monitoring & Control System	VDU	Scrashes on cube 5 Cube 4 must be checked (are the marks dirt or scratches) Horizontal and Vertical distortion from cubes to cubes (lines are not continue when crossing cubes) Background color varies from one cube to another VDU should be retuned VDU - main flat screen to be set up. Possible defects cube 5	201
		Communication Cabinet	LAN cable must be pulled inside the cable trunc Cable holes must be sealed to avoid mice or insect to get inside the cabinet Cabinet must be cleaned up	201
		LV Cabinet	Cable holes must be sealed to avoid mice or insect to get inside Cable trunc to be covered	201
Common			Provide descriptive name plates for all equipment eg label UPS, battery racks, transformer bays, etc. Calculate and set all relays for temporary operations	

SUMMARY SNAG LIST FOR OCC BUILDING

Detailed Snag List is separately provided by the Contractor's letter P5-EN-173-03 dated 11 December 2003.

Room No./ Area	Snag/ Room Name where any Snag exists
Common	Name Plate of Room should be installed on the each door. Internal Corner between Wall and Floor should be finished. Bottom of Wall should be painted deferent color (Place, Color and Height instructed by Engineer Later). Ceiling Board Level should be fixed. Clearance between Ceiling Support and Board should be fixed. Strength of Door closer should be adjusted. Furniture should be installed and tested. Supply Water System should be tested. Wast Water System should be cleaning out. Air Conditioning System should be completed and tested. Ventilation System should be completed. Telephone System (Telephonesets) should be installed and tested. Pull Box for Interior Lighting should be covered. Lightning Protection System should be completed.
101	Power Transformer No.1 Room
102	Power Transformer No.2 Room
103	110kV GIS Room
104	24kV GIS Room
105	DC/UPS Room
106	Auxiliary Transformer No.1 Room
107	Auxiliary Transformer No.2 Room
108	LV Distribution Board room
109	Diesel Generator No.1 Room
110	Diesel Generator No.2 Room
111	Fuel Tank No.1 Room
112	Fuel Tank No.2 Room
113	AC Panel Room
114	Battery Room
115	Air Conditioning Room
116	Water Filter Reservoir Room
117	Electrical & Mechanical Workshop
118	Storage
119	Police Room
120	Driver & Storage
121	WC
122	Entrance
123	Stair Hall
124	Corridor West Area
125	Corridor East Area
126	Corridor South Area
127	Stair A F1~F2
128	Stair B F1~F2
129	Platform

SUMMARY SNAG LIST FOR OCC BUILDING

Detailed Snag List is separately provided by the Contractor's letter P5-EN-173-03 dated 11 December 2003.

Room No./ Area	Snag/ Room Name where any Snag exists
201	Electrical Control Room
202	Ventilation Control Room
203	Supervisor A Room
204	Supervisor B Room
205	Director Room
206	Vice Director Room
207	Administrator & Accountant Room
208	Conference Room
209	Storage
210	Lunch Room
211	Kitchen
212	Kitchen Storage
213	WC Men
214	WC Women
215	Deck
216	Stair Hall
217	Corridor West Area
218	Corridor East Area
219	Stair A F2~R
301	Stair Hall
302	Rooftop
W1	West side Wall 1
W2	West side Wall 2
W3	West side Wall 3
W4	West side Wall 4
W5	West side Wall 5
N1	North side Wall 1
N2	North side Wall 2
N3	North side Wall 3
E1	East side Wall 1
S1	South side Wall 1
S2	South side Wall 2
S3	South side Wall 3
ON	Outdoor North Area (Hai Van Pass)
OS	Outdoor South Area (Sea)
OE	Outdoor East Area (Back)
OW	Outdoor West Area (Front)

SUMMARY SNAG LIST FOR 110KV TRANSMISSION LINES

Tower No./ Area	Snag
7 - 8	Tree Cutting is stoped.
12 - 14	Tree Cutting is stoped.
14	Insulator Assembly Sets of Lien Chieu S/S side should be installed and will be installed at the VO No.1 Construction. ACSR, OPGW and GSW stringing work is not completed and will be installed at the VO No.1 Construction.
110kV Power Transition Yard	Painting for Fence Wall and Collumn is not completed.
	Termination Clamp of ACSR should be installed and will be installed after 110kV Cable Testing.
	Backfilling for around the Fence is not completed.
	Manhole Cover should be fixed.
	Latch Hole for Gate should be made.
	Earthing Inspection Chamber should be completed.

SUMMARY FURNITURE LIST FOR OCC BUILDING

Detailed Snag List is separately provided by the Contractor's letter P5-EN-173-03 dated 11 December 2003.

No.	Description			Status	Remark
	Item	Required			
		Specification	Quantity		
1	Conference Table	3000 x 1200 mm	1 unit	Ordered	
2	Conference Chairs	without armrests	10 unit	Ordered	
3	Bookcase	Glass-fronted, Lockable, 3 shelf	7 unit	Ordered	
4	Desk	1500 x 900 mm, with lockable drawers	6 unit	Ordered	
5	Double pedestal Desk	1500 x 900 mm, lockable drawers	2 unit	Ordered	
6	Swivel office Chair	with Armrests	10 unit	Ordered	
7	Typist Chair	-	2 unit	Ordered	
8	Steel Cabinet	4-drawer filing	6 unit	Ordered	
9	Table	1500 x 900 mm	7 unit	Ordered	
10	Photocopier	Able3321 / Xerox or equivalent	1 unit	Storage	
11	Telephone Switch Board	-	1 unit	Installed	
12	Telephone Set	-	9 unit	Storage	after Desks Installation
13	Sofa	3 person size	1 unit	Ordered	
14	Coffee Table	1500 x 600 mm	1 unit	Ordered	
15	Digital Camera	MVC-FD7 / Sony or Equivalent	1 set	Storage	need installation room info.
16	First Aid Kit	20 persons / each	2 set	Storage	need installation room info.
17	Safety Helmet	with Insignia	4 pcs		
18	Potable Water Dispenser	Hot / Cold	2 unit		
19	Coffee Percolator	10 cup capacity minimum	1 unit		
20	Video Camera	Pal with 10 VCR tapes	1 set	Storage	need installation room info.
21	VCR Player	Multi System	1 unit	Storage	need installation room info.
22	Color TV	32 inch Multi System	1 unit	Storage	need installation room info.
23	Safety Box	800 x 800 x 800 mm	1 unit	Ordered	
24	Electric Typewriter	-	1 unit	Storage	after Desks Installation
25	Waste Baskets	Office Type	10 pcs		
26	Stapler	Medium Duty	6 pcs		
27	Stapler	Heavy Duty	1 pcs		
28	Document Punch	4-hole	2 pcs		
29	Desk Tray Set	3 level	10 pcs		
30	White Board	120 x 240 cm with Felt Markers	2 set		
31	Side Plates	-	15 pcs		
32	Janitor Mop, Broom, Pan	-	2 set		
33	Dining Table	Round, for 4 seats, Natural Wood	4 unit	Ordered	
34	Dining Chair	Natural Wood	16 unit	Ordered	
35	Electric Stove/Oven	4 electric Burners	1 unit		
36	Refrigerator	1.5 m³	1 unit		
37	Microwave Oven	Large Capacity	1 unit		
38	Deep Fryer	2-baskets, Large Capacity	1 unit		
39	Knife Set	12-pcs, w/Sharpening, International Brand	1 set		
40	Electric Grill	600 x 600 mm	1 unit		
41	Cooking Pot and Pan	Teflon corted, 8 sizes	1 set		

SUMMARY FURNITURE LIST FOR OCC BUILDING

Detailed Snag List is separately provided by the Contractor's letter P5-EN-173-03 dated 11 December 2003.

No.	Description			Status	Remark
	Item	Required			
		Specification	Quantity		
42	Dinner Set	for 12-persons, Microwave compatible	1 set		
43	Coffee Mug	1-cup capacity, Porcelain	15 set		
44	Cutlery, Knife, Fork, Spoon	Heavy Duty Stainless Steel	15 set		
45	Drinking Glass	Large size	2 pcs		
46	Cutlery Serving Set	Spoon, Ladle, Fork	1 set		
47	Electric Coffee Percolator	10-cup capacity	1 unit		
48	Tupperware Set	10 sizes	1 set		
49	Mobile Telephone	GSM network	3 unit		
50	Desktop Computer	CPU: Pentium III, etc.....	6 unit	Storage	after Desks Installation
51	Notebook Computer	CPU: Pentium III, etc.....	1 unit	Storage	after Desks Installation
52	External Modem	Motorola or equivalent	1 unit	Storage	after Desks Installation
53	Laser Printer	LaserJet 4V / Hewlett Packard or eq.	1 unit	Storage	after Desks Installation
54	External Disk Drive	Jazz x 1, Zip x 2	1 lot	Storage	
55	Collor Scanner	A3, 1200 x 1200 resolution	1 unit	Storage	after Desks Installation
56	Network Adapter Card	16 bit 10/100M Base-T / 3COM or eq.	6 pcs	Storage	
57	LAN Hub	12 slots / 3COM or equivalent	1 set	Storage	after Desks Installation
58	LAN Cable	100Mbps	1 lot	Installed	computer set-up not yet
59	Computer Software	Windows, Office / Microsoft x 7 etc.....	1 lot	Ordered	
60	Communication Radio	Base Unit x 1, Hand Unit x 3	1 lot		need Engineer's Instruction