

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



**CONSULTING SERVICES
FOR
HAI VAN PASS TUNNEL CONSTRUCTION PROJECT
CONTRACT No. 01/HVT/97
(OECF Loan Agreements No. VNIV-5, VNVI-5 and VNIX-4)**

**CLAIM EVALUATION REPORT
FOR
PACKAGE-1A: NORTH TUNNEL SECTION**

REPORT 3: CLAIM EVALUATION

**Part A: EOT Related Claims
Part B: Overbreak Claims**

MARCH 2006

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

CLAIM EVALUATION REPORT FOR PACKAGE-1A: NORTH TUNNEL SECTION
Report 3: Claim Evaluation (Revised in March 2006)

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CLAIM EVALUATION REPORT FOR PACKAGE-1A: NORTH TUNNEL SECTION

1 General

1.1 Claim Submitted by the Contractor

The Contractor of Package-1A: North Tunnel Section, J/V of Hazama and Cienco 6, issued the claim letter by his letter No. ENG-04-027 dated 12 February 2004.

1.2 Claim Management Procedure by the Engineer

The Consultant has been carrying out the project management by referencing the following matrix indicated in PMBOK 2000 issued in 2001 by PMI (Project Management Institute).

| Process Groups Knowledge Area | Initiating | Planning | Executing | Controlling | Closing |
|---------------------------------------|----------------|---|--|--|---------------------------------|
| 4. Project Integration Management | | 4.1 Project Plan Development | 4.2 Project Plan Execution | 4.3 Integrated Change Control | |
| 5. Project Scope Management | 5.1 Initiation | 5.2 Scope Planning 5.3 Scope Definition | | 5.4 Scope Verification 5.5 Scope Change Control | |
| 6. Project Time Management | | 6.1 Activity Definition 6.2 Activity Sequencing 6.3 Activity Duration Estimating 6.4 Schedule Development | 6.6 Activity Weights Definition | 6.5 Schedule Control 6.7 Progress Curves Development 6.8 Progress Monitoring | |
| 7. Project Cost Management | | 7.1 Resource Planning 7.2 Cost Estimating 7.3 Cost Budgeting | | 7.4 Cost Control | |
| 8. Project Quality Management | | 8.1 Quality Planning | 8.2 Quality Assurance | 8.3 Quality Control | |
| 9. Project Human Resource Management | | 9.1 Organizational Planning 9.2 Staff Acquisition | 9.3 Team Development | | 9.3 Project Completion |
| 10. Project Communications Management | | 10.1 Communications Planning | 10.2 Information Distribution | 10.3 Performance Reporting | 10.4 Administrative Closure |
| 11. Project Risk Management | | 11.1 Risk Management Planning 11.2 Risk Identification 11.3 Qualitative Risk Analysis 11.4 Quantitative Risk Analysis 11.5 Risk Response Planning | | 11.6 Risk Monitoring and Control | |
| 12. Project Procurement Management | | 12.1 Procurement Planning 12.2 Solicitation | 12.3 Solicitation 12.4 Source Selection 12.5 Contract Administration | | 12.6 Contract Closeout |
| 13. Project Safety Management | | 13.1 Safety Planning | 13.2 Safety Plan Execution | | 13.3 Administration & Reporting |
| 14. Project Environmental Management | | 14.1 Environmental Planning | 14.2 Environmental Assurance | 14.3 Environmental Control | |
| 15. Project Financial Management | | 15.1 Financial Planning | | 15.2 Financial Control | 15.3 Administration & Records |
| 16. Project Claim Management | | 16.1 Claim Identification 16.2 Claim Quantification | | 16.3 Claim Prevention | 16.3 Claim Resolution |

Figure 3-1. Mapping of Project Management Processes and Construction Management Processes to the Process Groups and Knowledge Areas

Figure 1-1 Referenced Job Matrix (PMBOK 2000)

In accordance with Chapter 16: Project Claim Management of the above table, the submitted claims have been managed by the following four steps:

- 1) Claim Identification
- 2) Claim Quantification
- 3) Claim Prevention
- 4) Claim Resolution

1.3 Step 1: Claim Identification

The Engineer submitted the claim identification report with his letter No. PMU-180-04 dated 9 August 2004.

Since the submission, Project Claim Evaluation Committee (PCEC), headed by Project Manager of the Employer, was established with members from the Employer and the Engineer, and the claim evaluation had been continued.

On 29 November 2004, PCEC called PK1A Contractor and conclusion of the claim identification by PCEC was informed during the meeting. The Conclusion was confirmed by the Engineer's letter No. PMU-248-04 dated 30 November 2004.

On 1 December 2004, the first MOT Claim Evaluation Committee (MCEC) was held in Hanoi. During the meeting, the Contractor made brief presentation and PCEC reported his evaluation result.

Conclusion of MCEC was summarized by his letter No. 4462/GD dated 6 December 2004. In his notice, MCEC approved 20 claims among 49 claims are as shown in **Table 1-1**. A series of claims related to the rock hardness is temporary approved provided that the Contractor submit appropriate substantial documents.

Among the 20 claims, CC.37: Price Adjustment of Blasting Materials was separately approved and the payment was made.

Table 1-1 Accepted Claims by MOT on 1st December 2004

| Claim Code No. | | Description | | Extra Work Only (Type A) | EOTOnly (Type B) | Both (Type C) | Ground | Judge |
|---|----|-------------|--|--|------------------|---------------|--------|-------|
| CATEGORY 1 - Issues Affecting Whole of Site and Causing Delay to Project Completion | | | | | | | | |
| 1 | C1 | G7 | CC.01 | Deferred Commencement of Project and Related Matters | | X | 44.1 | OK |
| 2 | | G5 | CC.02 | Non-Contributing Production Resources Affected by Commencement Delay | X | | 12.2 | OK |
| CATEGORY 2 - Issues Resulting in Delay to Ventilation Adit | | | | | | | | |
| 3 | C2 | G7 | CC.03 | Adverse Water Conditions | | X | 12.2 | OK |
| | | | 144m-Extension to Adit | | | | 51.1 | OK |
| 4 | | G1 | CC.04 | Time for Additional Excavation | | X | | |
| 5 | | | CC.05 | Time for Additional Concrete Lining | | X | | |
| 6 | | | CC.06 | Time for Relocation of Junction Works | | X | | |
| 7 | | G5 | CC.09 | Non-Contributing Production Resources Affected by Ventilation Adit Works Delay | X | | 51.1 | OK |
| CATEGORY 3 - Issues Causing Delay to Main Tunnel and Project Completion | | | | | | | | |
| 8 | | | CC.19 | Remedial Works for Excess Geological Deformation | | X | 44.1 | OK |
| 9 | | | CC.20 | Impact of Adit Delay on Main Tunnel Progress | | X | 44.1 | OK |
| | | | Provision of Temporary Cross Passages | | | | 51.1 | OK |
| 10 | | G3 | CC.21 | Temporary Cross Passage (TCP2) from MT to ET | X | | | |
| 11 | | | CC.22 | Temporary Connection Tunnel from VA to MT | X | | | |
| 12 | | G5 | CC.24 | Non-Contributing Production Resources Affected by Main Tunnel Works Delay | X | | 51.1 | OK |
| 13 | G7 | CC.25 | Consolidated EOT Request (including Time-Related Costs of Delay) | X | | 51.1 | OK | |
| CATEGORY 4 - Variation Issues not Relevant to Other Issue Category | | | | | | | | |
| 14 | C4 | G6 | CC.28 | Ventilation System at EP Tunnels 1 and 2 | X | | 51.1 | OK |
| 15 | | | CC.29 | Lighting System at EP Tunnels 1 and 2 | X | | | |
| 16 | | G3 | CC.35 | Provision of Temporary Cross Passage (TCP1) | X | | 51.1 | OK |
| | | G7 | CC.37 | Price Adjustment of Blasting Materials | X | | 70.8 | OK |
| 17 | | | CC.38 | Temporary Gravel Bedding at Portal Plaza and Tunnel Road Maintenance | X | | 51.1 | OK |
| CATEGORY 5 -Issues Necessary for Acceleration of Project | | | | | | | | |
| 18 | C5 | G4 | CC.43 | Deployment of 2nd Advance from South End of Tunnel | X | | 51.1 | OK |
| 19 | | | CC.48 | Provision of Temporary Cross Passages (TCP3 & TCP4) | X | | | |

1.4 Subsequent MOT Approval

Early May 2005, MOT approved seven (7) items shown in **Table 1-2** in his letter No. 1499/QD-BGTVT dated 4 May 2005.

Table 1-2 Seven Claims Approved by MOT (by 1499/QD-BGTVT on 4 May 2005)

| Claim Code No. | | Contractor's Claim (A) | | | MOT Approved (B) | Balance (C) = (A) - (B) |
|------------------------------|-------|------------------------|---------------|---------------|------------------|-------------------------|
| | | JPY | VND | Total in VND | VND | VND |
| Main Tunnel | | | | | | |
| | CC.21 | 1,676,986 | 73,398,377 | 291,406,557 | 287,861,589 | 3,544,968 |
| | CC.22 | 2,556,316 | 179,879,801 | 512,200,881 | 508,655,913 | 3,544,968 |
| Other Places | | | | | | |
| C4 | CC.28 | 1,631,436 | 191,810,616 | 403,897,296 | 403,897,296 | 0 |
| | CC.29 | 460,092 | 44,650,176 | 104,462,136 | 104,462,136 | 0 |
| | CC.35 | 1,686,440 | 74,015,910 | 293,253,110 | 289,708,142 | 3,544,968 |
| | CC.38 | 0 | 1,000,311,000 | 1,000,311,000 | 399,473,252 | 600,837,748 |
| Acceleration of Works | | | | | | |
| | CC.48 | 3,287,483 | 145,356,502 | 572,729,292 | 565,639,356 | 7,089,936 |
| | | 11,298,753 | 1,709,422,382 | 3,178,260,272 | 2,559,697,684 | 618,562,588 |

2 Step 2: Claim Quantification

2.1 Purpose of Claim Quantification

In order to support reaching agreement between the Employer and the Contractor, the Engineer carried out the Claim Quantification, in accordance with the Contract requirements and the claim documents submitted by the Contractor.

2.2 Claims Related to Rock Hardness

In accordance with the following letters, the PK1A Contractor submitted his clarification documents related to the rock hardness with his letter ENG-05-078 dated 21 September 2005.

2.3 Two Types of Claim

2.4 Step 2: Claim Quantification during July 2005

2.5 Contractor's Documents to be Evaluated

The Contractor had submitted the following documents as their claim documents. Document No.2 is simply extracted from Document No.1 for the items approved by MOT on 1st December 2004. Description itself was not updated at all.

Table 2-1 Contractor's Submitted Documents to be Evaluated

| No. | Letter No. | Date Submitted | Cover Letter's Subject |
|-----|------------|----------------|--|
| 1 | ENG-04-027 | 12 Feb 2004 | Submission of Requests for Extension of Time and Additional Compensation for the Whole of PK1A Civil Works |
| 2 | EMP-04-030 | 30 Dec 2004 | Approved Item's (20 Proposals) Cost Calculation for Request Compensation of Package 1A's Contract |
| 3 | EMP-05-003 | 28 Jan 2005 | Request for Issuance of Variation Order for the 20 Items Accepted by the Employer |

As described in Section 3.5 of Report 1: Claim Identification Report, Document No.1 above can be deemed as the contemporary records required by GCC Sub-Clause 53.2 or substantiation documents required by GCC Sub-Clause 53.3 subject to the Employer's consent.

Document No.3 was submitted including some supplemental supportive documents with modifications from Document No.1 for the 20 times approved by MOT on 1st December 2004. It was agreed by the Employer to accept this report was one of the official substantiation documents required by GCC Sub-Clause 53.3.

2.6 Summary

Summary of the claim quantification is as shown in **Table 2-3**.

Table 2-3 Summary of Claim Quantification (July 2005)

| Claim Code No. | Contractor's Claim (A) | | Engineer's Justification (B) | | Balance (C) = (A) - (B) | | |
|-----------------------|---------------------------|----------------|---------------------------------|---------------|----------------------------|---------------|----------------|
| | JPY | VND | JPY | VND | JPY | VND | |
| Delay of Commencement | | | | | | | |
| | CC.02 | 905,927 | 1,567,962,157 | 905,927 | 986,173,936 | 0 | 581,788,221 |
| Ventilation Adit | | | | | | | |
| C2 | CC.03 | 19,036,854 | 499,814,092 | 11,271,255 | 193,253,440 | 7,765,599 | 306,560,652 |
| | CC.09 | 502,534 | 5,006,556,891 | 7,728,764 | 832,301,237 | -7,226,230 | 4,174,255,655 |
| Main Tunnel | | | | | | | |
| | CC.24 | 2,549,948 | 6,232,119,140 | 22,601,307 | 1,572,242,583 | -20,051,359 | 4,659,876,557 |
| | CC.25 | 13,216,453 | 3,544,287,044 | 3,123,600 | 339,071,776 | 10,092,853 | 3,205,215,268 |
| Acceleration of Works | | | | | | | |
| C5 | CC.43 | 14,859,665 | 581,233,315 | 14,859,665 | 581,233,315 | 0 | 0 |
| | | 51,071,381 | 17,431,972,639 | 60,490,517 | 4,504,276,286 | (9,419,136) | 12,927,696,353 |
| Total in VND | | | 24,071,252,169 | | 12,368,043,529 | | 11,703,208,640 |
| Total in JPY | | 185,163,478.00 | | 95,138,796.00 | | 90,024,682.00 | |

Note: Exchange Rate 1JPY = 130 VND.

3 Step 3: Claim Prevention

3.1 Chronicle

After the issuance of "Report 2: Claim Quantification" by the Consultant with his letter No. PMU-113-05 dated 26 July 2005, several discussions have been held among the Employer, the Engineer and the Contractor in order to seek the agreeable point for the settlement of the claim..

On 22 September 2005, a summary meeting was held with attendance of General Director of PMU85, Mr. Nguyen Ngoc Tran, and the Engineer and the Contractor at PMU85 Hanoi office. During the meeting, the parties reached an agreement for procedure of the finalization of claims submitted by the Contractors.

Following the procedure agreed in the above meeting, the Contractor updated his claim documents and submitted a report titled "Request for Compensation of Additional Cost Resulting from 12 Items (EOT Relatives)" with his letter No. ENG-05-

079 dated 26 September 2005.

The Engineer re-evaluated the report submitted by the Contractor and submitted "Report 3: Claim Evaluation Report" with his letter No. PMU-140-05 dated 6 October 2005. This report was translated into Vietnamese and PMU85 submitted his report to MOT with his letter No. 287/TT-DAHV dated 17 October 2005.

The Engineer had further explained about the evaluation of EOT with his letter No. PMU-163-05 dated 8 December 2005.

On 9 December 2005, the second MOT Claim Evaluation Committee (MCEC) was held in Hanoi. During the meeting, evaluation of EOT was explained and the methodology was discussed, however, no conclusion was made.

On 26 December 2005, MOT issued his decision on the evaluation of EOT by his letter No. 4996/CDG-TD2.

an explanation meeting was held at MOT on

Quantification process at this time, the updated report above is solely re-evaluated. Previous reports listed in Table 2-1 were not referred.

3.2 Contractor's Claim Documents Updated

4 Step 4: Claim Resolution September-October 2005

4.1 Summary of Claim Evaluation

As shown in the following chapter, the Engineer has carried out the detailed evaluation of claims the updated claim document submitted by the Contractor.

Result of the evaluation is summarized in Table 4-1.

Table 4-1 Summary of Claim Resolution (October 2005)

| Claim Code No. | | Description | Contractor's Claim | | Engineer's Justification | | Balance | |
|----------------------------|-------|--|--------------------|----------------|--------------------------|----------------|-----------------|---------------|
| | | | (A) | | (B) | | (C) = (A) - (B) | |
| | | | JPY | VND | JPY | VND | JPY | VND |
| Delay of Commencement | | | | | | | | |
| C1 | CC.02 | Non-Contributing Production Resources Affected by Commencement Delay | 725,792 | 1,560,667,663 | 725,792 | 1,367,958,215 | 0 | 192,709,448 |
| Ventilation Adit | | | | | | | | |
| C2 | CC.03 | Adverse Water Conditions | 8,911,432 | 139,889,670 | 7,511,432 | 139,889,670 | 1,400,000 | 0 |
| | CC.09 | Non-Contributing Production Resources Affected by Ventilation Adit Works Delay | 1,186,899 | 2,435,489,445 | 1,186,899 | 2,052,892,382 | 0 | 382,597,063 |
| Main and Evacuation Tunnel | | | | | | | | |
| C3 | CC.24 | Non-Contributing Production Resources Affected by Main Tunnel Works Delay | 3,463,427 | 5,629,387,227 | 3,463,427 | 4,780,349,212 | 0 | 849,038,015 |
| | CC.25 | Consolidated EOT Request (including Time-Related Costs of Delay) | 15,923,467 | 6,286,697,474 | 15,306,883 | 3,248,437,580 | 616,584 | 3,038,259,894 |
| Acceleration of Works | | | | | | | | |
| C5 | CC.43 | Deployment of 2nd Advance from South End of Tunnel | 14,859,665 | 581,233,315 | 7,429,833 | 290,616,658 | 7,429,833 | 290,616,658 |
| Total | | | 45,070,682 | 16,633,364,794 | 35,624,265 | 11,880,143,717 | 9,446,417 | 4,753,221,077 |
| Total in VND | | | Total in VND | | 22,492,553,428 | | 16,511,298,180 | |
| Total in JPY | | | Total in JPY | | 173,019,642.00 | | 127,009,986.00 | |
| | | | | | | | 46,009,656.00 | |

Note: Exchange Rate 1JPY = 130 VND.

5 Evaluation Results of Each Claimed Item

5.1 ITEM No. 01 Adverse Water Conditions in Ventilation Adit (CC03)

(A) The Engineer's Evaluation

Item 1: Emergency Import of 4 units - 8" Submersible Pumps

Difficulties of downwards excavation at the Ventilation Adit was discussed and possibility of the water intrusion was pointed out during the contract negotiation in August 2000. The Contractor submitted the construction plan soon after the commencement of the works and it was described about the water intrusion at the Ventilation Adit.

Considering 1) the magnitude of abnormal level of the event of water intrusion, 2) the purchased pumps become property of the Contractor; the Engineer can accept 50% of the pump price.

| Item No. | Description | Unit | Qty. | Contractor's Claimed Amount | | | Engineer's Judge | Engineer's Evaluated Amount | | |
|----------|--|------|------|-----------------------------|------------|----------------|------------------|-----------------------------|------------|----------------|
| | | | | JPY | VND | VND Equivalent | | JPY | VND | VND Equivalent |
| A | 8" Submersible Pumps --- 600 kgs each Arrival Date: 29 Jan-02 & 04 Feb-02 | unit | 4 | 2,800,000 | - | 364,000,000 | 50% | 1,400,000 | - | 1,400,000 |
| B | Air Freight (Tokyo - DAD) | unit | 4 | 2,688,000 | - | 349,440,000 | 100% | 2,688,000 | - | 2,688,000 |
| C | Import Tax at DAD Airport | Unit | 4 | - | 38,169,600 | 38,169,600 | 100% | - | 38,169,600 | 38,169,600 |
| D | Custom Charges at DAD Airport | LS | 1 | - | 539,800 | 539,800 | 100% | - | 539,800 | 539,800 |
| E | Inland Transport (DAD to Loc Hai) | LS | 1 | - | 736,000 | 736,000 | 100% | - | 736,000 | 736,000 |
| TOTAL | | | | 5,488,000 | 39,445,400 | 752,885,400 | | 4,088,000 | 39,445,400 | 43,533,400 |

Item 2: Primary Water Control System at Adit Portal by means of "Gravity Flow"

This item is to be applied Pay Item 02346: Complete Primary Water Control System for each flow rate. The Contractor submitted the water flow record as the substantiative documents and those are acceptable. Accordingly, the Engineer can accept 100% of the claimed amount.

(B) Claim Amount After Evaluated

| Item No. | Description | Unit | Qty. | Contractor's Claimed Amount | | | Engineer's Judge | Engineer's Evaluated Amount | | |
|----------|--|------|------|-----------------------------|------------|----------------|------------------|-----------------------------|------------|----------------|
| | | | | JPY | VND | VND Equivalent | | JPY | VND | VND Equivalent |
| A | 8" Submersible Pumps --- 600 kgs each Arrival Date: 29 Jan-02 & 04 Feb-02 | unit | 4 | 2,800,000 | - | 364,000,000 | 50% | 1,400,000 | - | 182,000,000 |
| B | Air Freight (Tokyo - DAD) | unit | 4 | 2,688,000 | - | 349,440,000 | 100% | 2,688,000 | - | 349,440,000 |
| C | Import Tax at DAD Airport | Unit | 4 | - | 38,169,600 | 38,169,600 | 100% | - | 38,169,600 | 38,169,600 |
| D | Custom Charges at DAD Airport | LS | 1 | - | 539,800 | 539,800 | 100% | - | 539,800 | 539,800 |
| E | Inland Transport (DAD to Loc Hai) | LS | 1 | - | 736,000 | 736,000 | 100% | - | 736,000 | 736,000 |
| TOTAL | | | | 5,488,000 | 39,445,400 | 752,885,400 | | 4,088,000 | 39,445,400 | 570,885,400 |

| CC No. | Item | Description | Contractor's Claimed Amount | | | Engineer's Judge | Engineer's Evaluated Amount | | |
|--------|------|--|-----------------------------|-------------|----------------|------------------|-----------------------------|-------------|----------------|
| | | | JPY | VND | VND Equivalent | | JPY | VND | VND Equivalent |
| CC 03 | | Adverse Water Conditions | 8,911,432 | 139,889,670 | 1,298,375,830 | | 7,511,432 | 139,889,670 | 1,116,375,830 |
| | 1 | Emergency Import of 4 units - 8" Submersible Pumps | 5,488,000 | 39,445,400 | 752,885,400 | 76% | 4,088,000 | 39,445,400 | 570,885,400 |
| | 2 | Primary Water Control System at Adit Portal by means of "Gravity Flow" | 3,423,432 | 100,444,270 | 545,490,430 | 100% | 3,423,432 | 100,444,270 | 545,490,430 |

5.2 ITEM No. 02 Non-Contributing Production Resources Affected by Ventilation Adit Works Delay (CC02, 09, 24)

(A) The Engineer's Evaluation

Monthly Rate

Substantiative documents for monthly rate for both expatriate and Vietnamese are presented. Accordingly, the Engineer can accept

100% of the unit rate of monthly rate.

Number of Direct Manpower

Substantiative documents for the number of direct manpower for both expatriate and Vietnamese are presented. Accordingly, the Engineer can accept 100% of the number of the direct manpower.

Equipment Rate

Submitted unit rate is issued by Ministry of Construction (MOC) with his letter No. 1260/1988/QD-BXD, 38/2002/QD-BXD. 2276 BXD/VKT. This rate is not acceptable. Claimed extra cost should be justified by substantiative documents and substantiative documents means actual payment records for those equipment. Considering the actual situation although no persuasive evidence provided, the Engineer can accept 80% of the equipment rate.

Rate of Delay Extent

2.5 months of the extension of time for the open works was approved by MOT. 3.5 months of the extension of time for the Ventilation Adit works was approved by MOT. 3.23 months of the extension of Time for the main tunnel works and the evacuation tunnel works was agreed by PMU85.

Calculation method of delay extent is reasonable. Accordingly, the Engineer can accept 100% of the rate of the delay extent.

(B) Claim Amount After Evaluated

| CC No. | Description | Delay (months) | Contractor's Claimed Amount | | | Engineer's Judge | Engineer's Evaluated Amount | | |
|-----------|---|----------------|-----------------------------|----------------|----------------|------------------|-----------------------------|---------------|----------------|
| | | | JPY | VND | VND Equivalent | | JPY | VND | VND Equivalent |
| CC 02 | Non-Contributing production Resources Affected by Delay | | 725,792 | 1,560,667,663 | 1,655,020,623 | | 725,792 | 1,367,958,215 | 1,462,311,175 |
| | Manpower cost Open W. | 2.50 | 725,792 | 597,120,425 | 691,473,385 | 100% | 725,792 | 597,120,425 | 691,473,385 |
| | Plants and Equipments cost Open W. | 2.50 | - | 963,547,238 | 963,547,238 | 80% | - | 770,837,790 | 770,837,790 |
| CC 09 | Non-Contributing production Resources Affected by Delay | | 1,186,899 | 2,435,489,445 | 2,589,786,315 | | 1,186,899 | 2,052,892,382 | 2,207,189,252 |
| | Manpower cost VA | 3.50 | 1,186,899 | 522,504,132 | 676,801,002 | 100% | 1,186,899 | 522,504,132 | 676,801,002 |
| | Plants and Equipments cost VA | 3.50 | - | 1,912,985,313 | 1,912,985,313 | 80% | - | 1,530,388,250 | 1,530,388,250 |
| CC 24 (1) | Non-Contributing production Resources Affected by Delay | | 3,283,156 | 4,107,201,851 | 4,534,012,131 | | 3,283,156 | 3,505,986,053 | 3,932,796,333 |
| | Manpower cost MT | 3.23 | 3,283,156 | 1,101,122,862 | 1,527,933,142 | 100% | 3,283,156 | 1,101,122,862 | 1,527,933,142 |
| | Plants and Equipments cost MT | 3.23 | - | 3,006,078,989 | 3,006,078,989 | 80% | - | 2,404,863,191 | 2,404,863,191 |
| CC 24 (2) | Non-Contributing production Resources Affected by Delay | | 3,283,156 | 4,107,201,851 | 4,534,012,131 | | 180,271 | 1,274,363,158 | 1,297,798,388 |
| | Manpower cost ET | 3.23 | 180,271 | 283,074,289 | 306,509,519 | 100% | 180,271 | 283,074,289 | 306,509,519 |
| | Plants and Equipments cost ET | 3.23 | - | 1,239,111,086 | 1,239,111,086 | 80% | - | 991,288,869 | 991,288,869 |
| TOTAL | | | 8,479,003 | 12,210,560,810 | 13,312,831,200 | | 5,376,118 | 8,201,199,809 | 8,900,095,149 |

5.3 ITEM No. 03 Time-Related Costs of Delay (1), Power Supply Cost

(A) The Engineer's Evaluation

Monthly Rate of Power Supply Cost (1), Public Power Receiving

The Contractor provided breakdown of the public power supply in page 79. Among seven (7) transformers, the Engineer can accept the following items as indirect cost during the time extended:

- 1) Workshop,
- 2) North Portal Plaza
- 3) Inside Tunnel (Ventilating Fans and Lighting Facility)

All the other plant operation cost is included in the cost of each work and paid in accordance with BOQ items.

| No. | Plant | Category | Engineer's Judgment |
|-----|--|--------------------|---------------------|
| T1 | Main Office | Temporary Facility | NOT Acceptable |
| T2 | Crushing Plant -01 | Temporary Facility | NOT Acceptable |
| T3 | Work-shop Motor-pool, Warehouse, Laboratory | Temporary Facility | Acceptable |
| T4 | Batching Plant Concrete, Shotcrete production | Temporary Facility | NOT Acceptable |
| T5 | North Portal Area Motor-pool, Site-office, Lighting, Exhaust Fan | Temporary Facility | Acceptable |
| T6 | Inside Tunnel Tunnel equipments | Tunnel equipments | NOT Acceptable |
| | Ventilating Fan, Lighting Facility | Temporary Facility | Acceptable |
| T7 | Crushing Plant -02 | Temporary Facility | NOT Acceptable |

| Transformer and counter-meter | | Category | Consumption kw*h | Duration months | Consumption kw*h/ month | Rate VND/ kw*h | Amount VND/ month |
|--|--|-------------------|---------------------|--------------------|----------------------------|-------------------|----------------------|
| T3 | Work-shop Motor-pool, Warehouse, Laboratory | - Tempo. Facility | 320,000 | 34 | 9,412 | 1,122 | 10,560,264 |
| T5 | North Portal Area Motor-pool, Site-office, Lighting, Exhaust Fan | - Tempo. Facility | 1,741,660 | 28 | 62,202 | 1,122 | 69,790,644 |
| T6 | Inside Tunnel Ventilaing Fan, Lighting Facility | - Tempo. Facility | 1,162,269 | 32 | 36,321 | 1,045 | 37,955,445 |
| Average Monthly Public Power Receiving | | | | | | | 118,306,353 |

Monthly Rate of Power Supply Cost (2), Diesel Generator

The Contractor provided breakdown of the diesel generator power supply in page 87. Among four (4) work items, the Engineer can accept the following items as indirect cost during the time extended: Costs of the tunnel excavation and dewatering system were paid in accordance with BOQ items.

- 1) Ventilation System
- 2) Lighting, Site-office and Motor-pool

| No. | Type of Works | Category | Engineer's Judgment |
|-----|--------------------------------------|------------------|---------------------|
| 1 | Tunnel Excavation | Equipments | NOT Acceptable |
| 2 | Ventilation system | Contra Fan | Acceptable |
| 3 | Dewatering system | Submersible pump | NOT Acceptable |
| 4 | Lighting, Site-office and Motor-pool | | Acceptable |

| | | |
|---|-------------------------------------|--------------------|
| A. Generating Volume at Ventilation Adit Works | | 3,293,792 kw*h |
| Ventilation system (Contra Fan), 21 months | | 3,093,792 kw*h |
| Lighting, Site-office and Motor-pool, 26 months | | 200,000 kw*h |
| B. Fuel Consumption Rate for Generator | 1,373,262 ltr. / 6,625,448 kw*h = | 0.20727 ltr./ kw*h |
| C. Diesel Consumption | | |
| Ventilation system (Contra Fan), 21 months | 3,093,792 x 0.20727 = | 641,250 ltr. |
| Lighting, Site-office and Motor-pool, 26 months | 200,000 x 0.20727 = | 41,454 ltr. |
| D. Diesel Unit Rate | | |
| | 5,732,39,000 VND / 1,373,262 ltr. = | 4,174 VND/ltr |
| | ltr. months | VND / month |
| Ventilation system (Contra Fan), 21 months | 641,250 21 | 127,456,071 |
| Lighting, Site-office and Motor-pool, 26 months | 41,454 26 | 6,654,961 |
| E. Average Monthly Diesel Consumption Cost | | 134,111,033 VND |

(B) Monthly Rate After Evaluated

The Engineer's evaluated monthly rate is tabulated as follows:

| | |
|---|-------------|
| Average Monthly Public Power Receiving | 118,306,353 |
| Average Monthly Diesel Consumption Cost | 134,111,033 |
| Total | 252,417,386 |

5.4 ITEM No. 03 Time-Related Costs of Delay (2), Plants and Equipment Depreciation Cost

(A) The Engineer's Evaluation

The Contractor applied Regulation of Depreciation issued by Ministry of Finance (MOF), Decision 166/1999/QD-BTC. Type of the plant and arrival date on site was confirmed by the Contractor's monthly progress report.

(B) Further Clarification Needed by the Contractor

Following documents to be provided by the Contractor:

- 1) Regulation of Depreciation by MOF
- 2) Evidence of unit price of each plant
- 3) Origin of the product in comparison to the Contract
- 4) Year of product of each plant in comparison to the Contract

(C) Claim Amount After Evaluated

In case, the above clarification would satisfy the requirements in the contract, the Engineer can accept 100% of the claimed amount.

Evaluation will be finalized after receiving the above clarifications.

5.5 ITEM No. 03 Time-Related Costs of Delay (3), Indirect Cost

(A) The Engineer's Evaluation

Monthly Rate

Substantiative documents for monthly rate for both expatriate and Vietnamese are presented. Accordingly, the Engineer can accept 100% of the unit rate of monthly rate.

Number of Direct Manpower

Substantiative documents for the number of direct manpower for both expatriate and Vietnamese are presented. Accordingly, the Engineer can accept 100% of the number of the direct manpower.

(B) Further Clarification Needed by the Contractor

Following documents to be provided by the Contractor:

- 1) Calculation sheets of monthly rate of each plant.

(C) Claim Amount After Evaluated

In case, the above clarification would satisfy the requirements in the contract, the Engineer can accept 100% of the claimed amount.

Evaluation will be finalized after receiving the above clarifications.

5.6 ITEM No. 03 Time-Related Costs of Delay (4), Site Expense

(A) The Engineer's Evaluation

- The Contractor provided summary of site expenses including various items.
- "Office Furniture and Equipments" should not be included. This cost seems unchanged whether 3.8 months EOT or not.
- In addition, 47,901,813 VND per month had been paid to the Contractor under Pay Item 01250-2: Employer's and Engineer's Office Facility, Operation Cost. In case, the Contractor fail to provide sufficient evidence for the expense, considerable amount should be unused and should be used for the compensation of the cost of delay.
- The Engineer assumed that 30% of the above was used in the maintenance of the Employer's and Engineer's Office Facility, Operation Cost

| | | | |
|-----------|-----------|---------------|-------------|
| A | Original | 47,901,813 | VND / Month |
| B | Effective | 30% | |
| C = A x B | Used | 14,370,544 | |
| D = A - C | Balance | 33,531,269 | |
| E | Month | 48 | |
| F = D x E | | 1,609,500,917 | |

(B) Further Clarification Needed by the Contractor

Following document to be provided by the Contractor:

- 1) Expense evidence of Pay Item 01250-2: Employer's and Engineer's Office Facility, Operation Cost
- 2) Other substantiative data for each item.

(C) Claim Amount After Evaluated

In case, the above clarification would satisfy the requirements in the contract, the Engineer can accept 100% of the claimed amount.

Evaluation will be finalized after receiving the above clarifications.

5.7 ITEM No. 03 Time-Related Costs of Delay (5), Price Escalation

(A) The Engineer's Evaluation

The Engineer has no objection to the calculation method presented by the Contractor.

(B) Claim Amount After Evaluated

Evaluation will be finalized after receiving the "Total Indirect Cost" through the process above.

| Description | | Amount | | | | Remarks |
|--|-------------|---------------|------------|-----------------|------------------|-------------|
| | | JPY | USD | VND | consolidated VND | |
| Total Construction Cost | a | 2,403,294,631 | 525,000.00 | 116,820,198,887 | 436,619,500,917 | as of MS 32 |
| Total Indirect cost | b | 163,362,400 | - | 43,466,313,251 | 64,703,425,251 | |
| Percentage | c = b / a | | | | 14.82% | |
| Total price escalation | d | - | - | 16,723,432,642 | 16,723,432,642 | as of MS 32 |
| Total price escalation for Indirect cost | e = c x d | - | - | 2,478,275,413 | 2,478,275,413 | |
| Price escalation cost for one-month | f = e / 48 | - | - | 51,630,738 | 51,630,738 | |
| Price escalation cost for EOT period | g = f x 3.8 | - | - | 196,196,804 | 196,196,804 | |

5.8 ITEM No. 03 Time-Related Costs of Delay (6), Overhead and Profit

(A) The Engineer's Evaluation

The Engineer can accept 5% of Indirect Cost.

(B) Claim Amount After Evaluated

Evaluation will be finalized after receiving the "Total Indirect Cost" through the process above.

5.9 ITEM No. 03 Time-Related Costs of Delay (7), Summary of Amount Evaluated

| CC No. | Description | Delay (months) | Contractor's Claimed Amount | | | Engineer's Judge | Engineer's Evaluated Amount | | |
|--------|--|----------------|-----------------------------|---------------|----------------|------------------|-----------------------------|-----------------|-----------------|
| | | | JPY | VND | VND Equivalent | | JPY | VND | VND Equivalent |
| CC 25 | Consolidated Extension of Time Related Cost | | 15,923,467 | 6,286,697,474 | 8,356,748,158 | | 15,306,883 | 3,248,437,580 | 5,238,332,318 |
| | Power-supply cost | 3.80 | - | 2,087,674,590 | 2,087,674,590 | 46% | - | 959,186,066 | 959,186,066 |
| | Plants and Equipments Depreciation cost | 3.80 | 2,335,723 | 151,019,600 | 454,663,616 | 100% | 2,335,723 | 151,019,600 | 454,663,616 |
| | Indirect cost | 3.80 | 12,352,493 | 3,497,686,820 | 5,103,510,884 | 98% | 12,353,534 | 3,376,651,686 | 4,982,611,106 |
| | 01250-2: Employer's and Engineer's Office Facility, Operation Cost | | | | | | | (1,609,500,917) | (1,609,500,917) |
| | Price Escalation for Indirect Cost | 3.80 | - | 200,547,782 | 200,547,782 | 98% | - | 196,196,804 | 196,196,804 |
| | Overhead and Profit = Indirect cost x 10/5% | 3.80 | 1,235,251 | 349,768,682 | 510,351,286 | 50% | 617,625 | 174,884,341 | 255,175,643 |
| TOTAL | | | 15,923,467 | 6,286,697,474 | 8,356,748,158 | | 15,306,883 | 3,248,437,580 | 5,238,332,318 |

5.10 ITEM No. 04 Deployment of 2nd Advance from South End of Tunnel

(A) The Engineer's Evaluation

The Contractor proposed to claim 10% of BOQ item works of the acceleration of tunnel excavation from July 2003 to October 2003. This acceleration was instructed by the Employer by his letter No.HVALL-011-03 dated 10 March 2003.

However, considering that volume of indirect work was not much, The Engineer can accept 5% of BOQ item works of the acceleration of tunnel excavation.

(B) Claim Amount After Evaluated

| CC No. | Description | Delay (months) | Contractor's Claimed Amount | | | Engineer's Judge | Engineer's Evaluated Amount | | |
|--------|--|----------------|-----------------------------|-------------|----------------|------------------|-----------------------------|-------------|----------------|
| | | | JPY | VND | VND Equivalent | | JPY | VND | VND Equivalent |
| CC 43 | Deployment of 2nd Advance from South End of Tunnel | | 14,859,665 | 581,233,315 | 2,512,989,765 | | 7,429,833 | 290,616,658 | 1,256,494,883 |
| | Acceleration order for Main Tunnel Excavation | | 14,859,665 | 581,233,315 | 2,512,989,765 | 50% | 7,429,833 | 290,616,658 | 1,256,494,883 |
| TOTAL | | | 14,859,665 | 581,233,315 | 2,512,989,765 | | 7,429,833 | 290,616,658 | 1,256,494,883 |