FALL 2011

EXAM CSP-RU

Company/Sponsor Perspective Retirement Benefits U.S.

CASE STUDY

CSP-RU

Case Study - Course CSP Retirement - US

National Oil Company - Background

National Oil Company (NOC) is a large well-established company that services oil wells all over the country of Vosne. NOC has been in existence for over 30 years and has more than 10,000 full-time salaried and union hourly employees and up to a further 5,000 non-skilled seasonal employees during the non-winter months. Approximately one-half of the seasonal employees return for another season. The full-time workforce is reasonably stable, but turnover in the last 5 years has been greater than desired, due to competitors recruiting NOC's employees.

Normally, an undergraduate degree is a minimum requirement to obtain entry to the salaried workforce and many employees have graduate degrees. About half of NOC's salaried employees are recruited directly from university with the other half coming from competitors.

The company's financial position varies with the price of oil. As oil prices rise, oil companies become increasingly active and in turn require the services of NOC. Conversely, activity slows as oil prices drop. Despite this, the company is usually in a taxable position.

NOC has managed to be successful by staying on the cutting edge of technology. NOC prides itself in being state of the art in processes and software relevant to its industry. This has helped it to stave off competition from both inside and outside of Vosne. Although NOC is the largest player in the industry within Vosne, there are larger players from outside of the country, with which NOC has to compete. From time to time, there are rumors of a takeover of NOC.

Country of Vosne - Background

Vosne is a modern developed country with a simplified tax system. Both corporations and individuals are subject to income tax at a flat rate of 40%. Reasonable operating expenses, including contributions to Eligible Retirement Plans (ERPs), reduce taxable income.

No pension legislation exists apart from the rules outlined herein.

Rules that apply to gain ERP status are as follows:

General

• if a company has one or more ERPs, then all employees are entitled to be in at least one of the company's ERPs.

Defined Benefit Plans (DB ERPs)

- employer contributions may not exceed those recommended by an actuary, in accordance with generally accepted actuarial practice
- employer contributions are an eligible expense to reduce the employer's taxable income
- periodic pensions may not exceed \$3,000 per annum for each year of service regardless of form or commencement age
- periodic pensions cannot commence prior to age 55
- investment earnings generated by the ERP pension fund are not taxable
- pension payments are taxed as received in the hands of the recipient
- no employee contributions are permitted

Defined Contribution Plans (DC ERPs)

- employer contributions for any individual plan member cannot exceed \$20,000 annually
- employer contributions are an eligible expense to reduce the employer's taxable income
- investment earnings generated by the ERP pension fund are not taxable until withdrawn
- benefit distributions are taxed as received in the hands of the recipient
- employer contributions may or may not be dependent on employee contributions
- individuals may contribute up to \$20,000 annually
- such contributions are tax deductible to the individual

The tax assistance available under each of the above two arrangements does not depend on the extent of participation under the other one. For example, an individual could participate in a DC ERP and, if eligible under the plans' rules, also a DB ERP of his or her employer.

Supplemental Retirement Plans (SRPs)

Contributions to a retirement plan that does not meet ERP status are not tax-deductible. Benefits paid to participants under such plans are tax deductible to the company and are taxable to participants, when paid to participants. Such a plan is known as a Supplemental Retirement Plan (SRP). An example of an SRP is a plan that restores the benefits lost by the imposition of the ERP maximums.

Retiree Health Care Plans

Employers in Vosne may provide health care benefits to retirees and their spouses through a separate plan which is not intended to qualify for ERP status. Benefits (including insurance premiums) paid under such plans are tax deductible to the company when paid on behalf of participants. Benefits payable as an indemnity for health related services are not taxable to plan participants at any time.

No social security pension system exists in Vosne and there are no state-provided life or health-care benefits.

For financial reporting purposes, Vosne adopted FASB Accounting Standards.

The investment market in Vosne is well developed, with substantial trading in government and corporate bonds and equities.

Summary of National Oil's Retirement Benefits

NOC maintains three defined benefit plans:

- 1. a final-average pay defined benefit ERP for its full-time salaried employees;
- 2. a unit benefit defined benefit ERP for its full-time hourly union staff; and
- 3. a non-eligible pension plan (referred to as the SRP) for its executives that is supplemental to the salaried ERP. This plan has no assets.

In addition, the company has a defined contribution ERP for its seasonal workforce.

Furthermore, eligible full-time salaried and union employees retiring with the company are covered for their lifetime by health benefits.

Extracts of Retirement Benefits Provisions and Financial Information

National Oil Full-Time Salaried Pension Plan

Eligibility Immediate

Vesting 100% after 5 years of service

Normal Retirement Age 65

Early Retirement Age 55 with 5 years of service

Best Average Earnings Average annual earnings during 60 consecutive months in

which earnings were highest

Earnings Base pay, excluding overtime and bonuses

Normal Retirement Benefit 2% of best average earnings times years of service,

subject to tax system maximum

Accrued Benefit Benefit calculated as under the normal retirement benefit

formula using best average earnings and service as of

date of calculation

Early Retirement Benefit Accrued benefit reduced by 0.25% per month that early

retirement precedes age 62

Form of Benefit If married, 50% joint & survivor benefit, without reduction.

If not married, single life annuity

Optional Forms of Benefit None

Indexing None

Termination Benefit Lump sum equal to actuarial present value of accrued

benefit

Pre-Retirement Death Benefit Lump sum equal to actuarial present value of accrued

benefit payable to named beneficiary

Disability Benefit None

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|--------|--------|--------|--------|--------|--------|
| Participant Summary - January 1 | | | | | | |
| Active Participants | | | | | | |
| (a) count | 4,305 | 4,268 | 4,287 | 4,250 | 4,118 | 4,067 |
| (b) average age | 46.1 | 46.6 | 47.0 | 47.5 | 48.0 | 48.5 |
| (c) average service | 16.4 | 16.8 | 17.3 | 17.8 | 18.4 | 18.7 |
| (d) average future working lifetime | 11.0 | 10.8 | 11.0 | 10.8 | 10.5 | 10.7 |
| (e) average future working lifetime to vesting (for those not) | N/A | N/A | N/A | N/A | N/A | 3.0 |
| (f) average plan earnings (prior year) | 68,000 | 71,000 | 73,000 | 74,000 | 75,000 | 78,000 |
| Deferred Vested Participants | | | | | | |
| (a) count | - | - | - | - | - | - |
| Pensioners (incl beneficiaries) | | | | | | |
| (a) count | 640 | 665 | 697 | 736 | 775 | 804 |
| (b) average age | 70.5 | 70.2 | 69.8 | 69.7 | 70.5 | 70.5 |
| (c) average annual benefit | 19,500 | 19,700 | 20,100 | 20,300 | 20,800 | 21,200 |

Plan Assets (numbers in \$000's) *

| Change in Plan Assets during Prior Year: | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|
| Market Value of Assets at January 1 of prior year | 674,049 | 771,730 | 859,388 | 1,003,940 | 1,027,990 | 875,898 |
| Employer Contributions during prior year | 37,000 | 39,338 | 42,134 | 41,645 | 40,564 | 40,526 |
| Benefit Payments during prior year | (19,480) | (20,500) | (22,000) | (27,000) | (28,000) | (29,000) |
| Expenses during prior year | - | - | - | - | - | - |
| Investment return during prior year | 80,162 | 68,819 | 124,419 | 9,405 | (164,656) | 94,955 |
| Market Value of Assets at January 1 of current year | 771,730 | 859,388 | 1,003,940 | 1,027,990 | 875,898 | 982,379 |
| Rate of return during prior year | 12% | 9% | 14% | 1% | -16% | 11% |
| Average Portfolio Mix During Prior Year: | | | | | | |
| (a) Domestic Large Cap Equities | 30% | 29% | 35% | 32% | 25% | 31% |
| (b) Domestic Small Cap Equities | 27% | 28% | 22% | 21% | 19% | 21% |
| (c) Domestic Fixed Income | 26% | 27% | 30% | 34% | 40% | 36% |
| (d) International Equities | 13% | 11% | 9% | 7% | 9% | 5% |
| (e) Real Estate | 2% | 3% | 2% | 3% | 4% | 4% |
| (f) Cash | <u>2%</u> | <u>2%</u> | <u>2%</u> | <u>3%</u> | <u>3%</u> | <u>3%</u> |
| (g) Total | 100% | 100% | 100% | 100% | 100% | 100% |
| Asset Class Returns during Prior Year: | | | | | | |
| (a) Domestic Large Cap Equities | 15% | 13% | 23% | -2% | -30% | 15% |
| (b) Domestic Small Cap Equities | 14% | 7% | 18% | -4% | -40% | 20% |
| (c) Domestic Fixed Income | 7% | 3% | 4% | 5% | 2% | 4% |
| (d) International Equities | 12% | 17% | 10% | 5% | -20% | 6% |
| (e) Real Estate | 3% | 12% | 8% | 10% | 3% | 3% |
| (f) Cash | 1% | 2% | 2% | 2% | 2% | 2% |

^{*} numbers may not add due to rounding

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|----------|----------|-------------|-------------------|-----------|----------|
| Funding Valuation - January 1 (numbers in \$000's) * | | | | | | |
| 1. Actuarial Accrued Liability: | | | | | | |
| (a) Active participants | 645,138 | 707,847 | 720,460 | 722,038 | 745,684 | 791,900 |
| (b) Deferred vested participants | - | - | - | - | - | - |
| (c) Pensioners | 111,072 | 117,905 | 127,909 | 131,479 | 141,856 | 149,994 |
| (d) Total | 756,210 | 825,751 | 848,369 | 853,517 | 887,540 | 941,894 |
| 2. Actuarial Value of Assets | 771,730 | 859,388 | 1,003,940 | 1,027,990 | 875,898 | 982,379 |
| 3. Unfunded Actuarial Accrued Liability: (1d)-(2) | (15,520) | (33,636) | (155,572) | (174,473) | 11,642 | (40,485) |
| 4. Normal Cost (beg. Of year) | 39,338 | 42,134 | 41,645 | 40,564 | 40,526 | 42,348 |
| 5. Change in Unfunded AAL during prior year: | | | | | | |
| (a) Unfunded AAL at prior valuation date | 19,661 | (15,520) | (33,636) | (155,572) | (174,473) | 11,642 |
| (b) Adjustment for Interest | 1,376 | (1,048) | (2,186) | (10,501) | (12,213) | 815 |
| (c) Normal Cost w/interest less contributions | 1,146 | 1,327 | 1,369 | 1,406 | 1,420 | 1,419 |
| (d) (Gain)/Loss on investment | (32,365) | (16,092) | (67,904) | 58,856 | 237,055 | (33,239) |
| (e) (Gain)/Loss on termination | (8,100) | (11,000) | (8,000) | (13,000) | (17,000) | (15,000) |
| (f) (Gain)/Loss on salary increases less than expected | (7,000) | 2,000 | (4,000) | (7,000) | (12,000) | 5,000 |
| (g) (Gain)/Loss on mortality | (4,000) | (6,800) | 1,000 | 1,500 | 1,800 | 1,300 |
| (h) (Gain)/Loss on retirement | (4,700) | (7,400) | (5,000) | (7,000) | (13,000) | (12,500) |
| (i) (Gain)/Loss on assumption changes | 19,100 | 21,000 | (37,000) | (43,000) | - | - |
| (j) (Gain)/Loss on expenses | - | - | - | | • | ~ |
| (k) (Gain)/Loss on all other factors | (639) | (104) | (214) | (161) | 54 | 78 |
| (I) Unfunded AAL at current valuation date | (15,520) | (33,636) | (155,572) | (174,473) | 11,642 | (40,485) |
| 6. Actuarial Basis | | | | | | |
| (a) Interest | 6.75% | 6.50% | 6.75% | 7.00% | 7.00% | 7.00% |
| (b) Salary scale | 3.75% | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% |
| (c) Consumer Price Index | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| (d) Mortality | | _ | GAN | | | |
| (e) Turnover | | Based | | ience for 1986- | 1988 | |
| (f) Retirement age | | | Age | | | |
| (g) Proportion married and age difference | 8 | | | ears older than f | | |
| (h) Expenses | | Assı | | s paid by compa | any | |
| (i) Asset Valuation Method | | | Market valu | | | |
| (j) Actuarial Cost Method | | | Projected | unit Credit | | |

^{*} numbers may not add due to rounding

| Expense Valuation - January 1 (numbers in \$000's) * | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|-----------|---------------|-----------------|-----------------|----------------|-------------|
| Reconciliation of funded status at valuation date: | <u> </u> | | | | | |
| (a) Accumulated Benefit Obligation | (559,852) | (636,422) | (665,121) | (680,663) | (777,235) | (844,146) |
| (b) Projected Benefit Obligation | | | | | | |
| (i) retirees / actives - fully vested | N/A | N/A | N/A | N/A | N/A | (1,121,508) |
| (ii) actives - not fully vested | N/A | N/A | N/A | N/A | N/A | (84,415) |
| (iii) total | (861,311) | (979,111) | (1,023,263) | (1,047,175) | (1,110,336) | (1,205,922) |
| (c) Fair Value of Assets | 771,730 | 859,388 | 1,003,940 | 1,027,990 | 875,898 | 982,379 |
| (d) Funded Status: (b) + (c) | (89,581) | (119,724) | (19,323) | (19,184) | (234,437) | (223,543) |
| (e) Unrecognized (gains)/losses | 1,950 | 28,400 | (70,662) | (71,446) | 141,037 | 111,010 |
| (f) Prepaid/(Accrued) expense | (87,631) | (91,324) | N/A | N/A | N/A | N/A |
| 2. Pension Expense: | | | | | | |
| (a) Service Cost (beg. of year) | 47,699 | 50,021 | 52,056 | 50,705 | 52,495 | 57,065 |
| (b) Interest Cost | 53,956 | 56,039 | 61,198 | 65,063 | 66,058 | 68,667 |
| (c) Expected return on assets | (58,624) | (65,265) | (70,963) | (72,434) | (61,751) | (69,234) |
| (d) Amortization of past service cost | - | - | - | | - | - |
| (e) Amortization of net actuarial (gain)/loss ** | | • | - | - | 2,857 | - |
| (f) Pension Expense for year | 43,031 | 40,795 | 42,291 | 43,334 | 59,659 | 56,498 |
| 3. Actuarial Basis and Supplemental Data | | | | | | |
| (a) Discount rate | 6.00% | 5.50% | 5.75% | 6.00% | 5.75% | 5.50% |
| (b) Return on assets | 7.50% | 7.50% | 7.00% | 7.00% | 7.00% | 7.00% |
| (c) Salary scale | 3.75% | 3.50% | 3.75% | 4.00% | 4.00% | 4.00% |
| (d) Consumer Price Index | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| (e) Mortality | | | GA | | | |
| (f) Turnover | | | d on NOC expe | | | |
| (g) Proportion married and age difference | 8 | 0% married; m | ale spouses 3 y | ears older than | female spouses | 3 |
| (h) Retirement age | | | Age | | | |
| (i) Expenses | | Ass | ume all expense | | any | |
| (j) Asset Valuation Method | | | Market valu | | | |
| (k) Actuarial Cost Method | | | Projected | | | |
| (I) Employer contributions | 39,338 | 42,134 | 41,645 | 40,564 | 40,526 | 42,348 |
| (m) Benefit payments | (19,480) | (20,500) | (22,000) | (27,000) | (28,000) | (29,000) |

^{*} numbers may not add due to rounding

** gains/losses exceeding 10% of the greater of the Projected Benefit Obligation and the Fair Value of Assets are amortized over the
average future working lifetime of active participants

| | Active | Pensioners/ Beneficiaries | Total |
|--|---------|------------------------------|-------|
| 1. Participants as of January 1, 2005 | 4,305 | 640 | 4,945 |
| - New Entrants/Rehires | 250 | _ | 250 |
| - Terminated Nonvested | (115) | - | (115) |
| - Terminated Vested (Lump Sum Cashout) | (140) | - | (140) |
| - Retirement | (30) | 30 | - |
| - Death w/ Beneficiary | (2) | 2 | - |
| - Death w/o Beneficiary | - | (7) | (7) |
| - Net change | (37) | 25 | (12) |
| 2. Participants as of January 1, 2006 | 4,268 | 665 | 4,933 |
| - New Entrants/Rehires | 300 | - | 300 |
| - Terminated Nonvested | (130) | - | (130) |
| Terminated Vested (Lump Sum Cashout) | (115) | - | (115) |
| - Retirement | (35) | 35 | - |
| - Death w/ Beneficiary | (1) | 1 | - |
| - Death w/o Beneficiary | - | (4) | (4) |
| - Net change | 19 | 32 | 51 |
| 3. Participants as of January 1, 2007 | 4,287 | 697 | 4,984 |
| - New Entrants/Rehires | 275 | - | 275 |
| - Terminated Nonvested | (150) | - | (150) |
| Terminated Vested (Lump Sum Cashout) | (120) | - | (120) |
| - Retirement | (40) | 40 | - |
| - Death w/ Beneficiary | (2) | 2 | - |
| - Death w/o Beneficiary | - (077) | (3) | (3) |
| - Net change | (37) | 39 | 2 |
| 4. Participants as of January 1, 2008 | 4,250 | 736 | 4,986 |
| - New Entrants/Rehires | 200 | - | 200 |
| - Terminated Nonvested | (170) | - | (170) |
| Terminated Vested (Lump Sum Cashout) | (120) | - | (120) |
| - Retirement | (40) | 40 | - |
| - Death w/ Beneficiary | (2) | 2 | - |
| - Death w/o Beneficiary | - | (3) | (3) |
| - Net change | (132) | 39 | (93) |
| 5. Participants as of January 1, 2009 | 4,118 | 775 | 4,893 |
| - New Entrants/Rehires | 230 | - | 230 |
| - Terminated Nonvested | (100) | - | (100) |
| Terminated Vested (Lump Sum Cashout) | (150) | - | (150) |
| - Retirement | (30) | 30 | - |
| - Death w/ Beneficiary | (1) | 1 | - |
| - Death w/o Beneficiary | - | (2) | (2) |
| - Net change | (51) | 29 | (22) |
| 6. Participants as of January 1, 2010 | 4,067 | 804 | 4,871 |

National Oil Full-Time Salaried Pension Plan Age/Svc/Earnings as of January 1, 2010

Age (Years)

| # Participants |
|-------------------------|
| 43,000 310 53,500 |
| 195 67,600 |
| 210 72,000 |
| 164 67,000 |
| 4 53,000 |
| 983 61,400 |
| 48.5 18.7 78,000 |

National Oil Full-Time Salaried Supplemental Retirement Plan (SRP)

Eligibility Immediate

Normal Retirement Age 65

Early Retirement Age 55 with 5 years of service

Salaried Pension Plan without regard to tax system maximums <u>less</u> actual Accrued Benefit under the

Salaried Pension Plan

Normal Retirement Benefit Accrued Benefit

Early Retirement Benefit Accrued Benefit reduced by 0.25% per month that

early retirement precedes age 62

Commencement Date and Form

of Benefit

Must be same as under Salaried Pension Plan

Indexing None

Termination Benefit None

Pre-Retirement Death Benefit None

Disability Benefit None

| Historical Valuation Results - January 1 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|---------|---------|---------|---------|---------|---------|
| Participant Summary | | | | | | |
| 1. Active Participants | | | | | | |
| (a) count | 47 | 49 | 52 | 55 | 57 | 59 |
| (b) average age | 52.9 | 53.1 | 53.6 | 53.8 | 54.3 | 54.9 |
| (c) average service | 18.1 | 18.2 | 18.5 | 18.6 | 18.9 | 19.4 |
| (d) average future working lifetime | 6.5 | 6.3 | 6.1 | 6.0 | 5.9 | 5.7 |
| (e) average future working lifetime to vesting (for those not) | N/A | N/A | N/A | N/A | N/A | 2.0 |
| (f) average plan earnings (prior year) | 310,000 | 315,000 | 325,000 | 340,000 | 347,000 | 360,000 |
| Deferred Vested Participants | | | | | | |
| (a) count | - | - | - | - | - | - |
| 3. Pensioners (incl beneficiaries) | | | | | | |
| (a) count | 14 | 15 | 17 | 19 | 21 | 23 |
| (b) average age | 67.6 | 67.2 | 66.6 | 66.1 | 65.7 | 66.1 |
| (c) average annual benefit | 12,900 | 13,100 | 14,000 | 14,500 | 15,000 | 15,300 |

Expense Valuation Results (numbers in \$000's) *

| Reconciliation of funded status at valuation date: | | | | | | |
|--|------------|------------|------------------|------------------|--------------|----------|
| (a) Accumulated Benefit Obligation | (11,489) | (13,796) | (14,396) | (14,839) | (19,114) | (21,448) |
| (b) Projected Benefit Obligation | A1/A | A1/A | A.//A | A4/A | A1/A | (05.740) |
| (i) retirees / actives - fully vested | N/A N/A | N/A N/A | N/A N/A | N/A N/A | N/A N/A | (35,746) |
| (ii) actives - not fully vested | | | | | | (11,915) |
| (iii) total (c) Fair Value of Assets | (28,722) | (34,489) | (35,991) | (37,098) | (42,475) | (47,662) |
| (d) Funded Status: (b) + (c) | (28,722) | (34,489) | (35,991) | (37,098) | (42,475) | (47,662) |
| (e) Unrecognized prior service costs | (20,122) | (34,409) | (55,991) | (37,080) | (42,410) | (47,002) |
| (f) Unrecognized (gains)/losses | 4,930 | 7,826 | 5,809 | 3,547 | 5,750 | 7,219 |
| (g) Prepaid/(Accrued) expense | (23,792) | (26,663) | 0,000 N/A | N/A | N/A | N/A |
| (g) Frepaid/(Accided) expense | (20,7 02) | (20,000) | 1377 | INIA | 1477 | 19//3 |
| 2. Pension Expense | | | | | | |
| (a) Service cost (beg. of year) | 959 | 1,070 | 1,118 | 1,162 | 1,272 | 1,419 |
| (b) Interest cost | 1,775 | 1,950 | 2,127 | 2,287 | 2,506 | 2,690 |
| (c) Expected ROA | • | - | - | - | - | - |
| (d) Amort of prior svc cost | - | - | - | - | - | - |
| (e) Amort of unrec (gain)/loss ** | 317 | 695 | 362 | - | 255 | 430 |
| (f) Pension Expense for year | 3,051 | 3,715 | 3,607 | 3,450 | 4,033 | 4,539 |
| 3. Benefit Payments | 181 | 197 | 238 | 276 | 315 | 352 |
| 4. Actuarial Basis | | | | | | |
| (a) Discount rate | 6.00% | 5.50% | 5.75% | 6.00% | 5.75% | 5.50% |
| (b) Return on assets | N/A | N/A | N/A | N/A | N/A | N/A |
| (c) Salary scale | 3.75% | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% |
| (d) CPI | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| (e) All other assumptions | | Same as | for Full-time Sa | laried Pension F | Plan | |

^{*} numbers may not add due to rounding
** gains/losses exceeding 10% of the greater of the Projected Benefit Obligation and the Fair Value of Assets are amortized over the
average future working lifetime of active participants

National Oil Full-Time Hourly Union Pension Plan

Eligibility Immediate

Vesting 100% after 5 years of service

Normal Retirement Age 65

Early Retirement Age 55 with 10 years of service

Normal Retirement Benefit \$75 per month times years of service for terminations/

retirements during 2003, 2004, and 2005

\$80 per month times years of service for terminations/

retirements during 2006, 2007, 2008 and 2009

\$81 per month times years of service for terminations/

retirements during 2010 and beyond

Accrued Benefit Benefit calculated as under the normal retirement benefit

formula based on service and multiplier as of date of

calculation.

Early Retirement Benefit Unreduced benefit at 62 with 30 years of service,

otherwise reduced by 0.25% per month that early retirement precedes Normal Retirement Age.

Form of Benefit If married, 50% joint & survivor benefit without reduction

If not married, single life annuity.

Optional Forms of Benefit None

Post-Retirement Indexing Lesser of 1% or CPI each year after pension commencement

Termination Benefit Lump sum equal to actuarial present value of accrued

benefit assuming no indexing

Pre-Retirement Death Benefit Lump sum equal to actuarial present value of accrued

benefit assuming no indexing, payable to named beneficiary

Disability Benefit None

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|--------|--------|--------|--------|--------|--------|
| Participant Summary - January 1 | | | | | | |
| Active Participants | | | | | | |
| (a) count | 6,295 | 6,253 | 6,300 | 6,363 | 6,326 | 6,285 |
| (b) average age | 46.4 | 47.0 | 47.2 | 47.8 | 48.6 | 49.4 |
| (c) average service | 17.3 | 17.8 | 18.0 | 18.7 | 19.3 | 19.8 |
| (d) average future working lifetime | 10.7 | 10.6 | 10.8 | 10.2 | 10.5 | 10.3 |
| (e) average future working lifetime to vesting (for those not) | N/A | N/A | N/A | N/A | N/A | 3.4 |
| (f) average plan earnings (prior year) | 39,500 | 39,800 | 39,600 | 41,000 | 42,000 | 43,000 |
| Deferred Vested Participants | | | | | | I |
| (a) count | - | - | - | - | - | • |
| Pensioners (incl beneficiaries) | | | | | | |
| (a) count | 1,034 | 1,060 | 1,083 | 1,088 | 1,103 | 1,130 |
| (b) average age | 71.2 | 70.8 | 70.2 | 70.4 | 71.4 | 71.9 |
| (c) average annual benefit | 10,000 | 10,800 | 11,200 | 11,300 | 11,400 | 11,500 |

Plan Assets (numbers in \$000's) *

| Change in Plan Assets during Prior Year: | | | | | | |
|---|-----------|----------|-----------|-----------|-----------|-----------|
| Market Value of Assets at January 1 of prior year | 380,717 | 444,899 | 504,972 | 557,208 | 597,964 | 617,450 |
| Employer Contributions during prior year | 33,000 | 34,400 | 37,000 | 32,000 | 35,000 | 40,000 |
| Benefit Payments during prior year | (11,340) | (12,000) | (15,000) | (16,000) | (16,000) | (17,000) |
| Expenses during prior year | | - | · · · | · - | · · · | - |
| Investment return during prior year | 42,522 | 37,674 | 30,236 | 24,756 | 486 | 30,315 |
| Market Value of Assets at January 1 of current year | 444,899 | 504,972 | 557,208 | 597,964 | 617,450 | 670,766 |
| Rate of return during prior year | 11% | 8% | 6% | 4% | 0% | 5% |
| Average Portfolio Mix During Prior Year: | | | | | | |
| (a) Domestic Large Cap Equities | 29% | 30% | 10% | 8% | 6% | 8% |
| (b) Domestic Small Cap Equities | 20% | 21% | 0% | 0% | 0% | 0% |
| (c) Domestic Fixed Income | 38% | 36% | 88% | 90% | 92% | 89% |
| (d) International Equities | 8% | 9% | 0% | 0% | 0% | 0% |
| (e) Real Estate | 2% | 2% | 0% | 0% | 0% | 0% |
| (f) Cash | <u>3%</u> | 2% | <u>2%</u> | <u>2%</u> | <u>2%</u> | <u>3%</u> |
| (g) Total | 100% | 100% | 100% | 100% | 100% | 100% |
| Asset Class Returns during Prior Year: | | | | | | |
| (a) Domestic Large Cap Equities | 15% | 13% | 23% | -2% | -30% | 15% |
| (b) Domestic Small Cap Equities | 14% | 7% | 18% | -4% | -40% | 20% |
| (c) Domestic Fixed Income | 7% | 3% | 4% | 5% | 2% | 4% |
| (d) International Equities | 12% | 17% | 10% | 5% | -20% | 6% |
| (e) Real Estate | 3% | 12% | 8% | 10% | 3% | 3% |
| (f) Cash | 1% | 2% | 2% | 2% | 2% | 2% |

^{*} numbers may not add due to rounding

| Funding Valuation - January 1 (numbers in \$000's) * | 2005 | | 2006 | | 2007 | | 2008 | | 2009 | 2010 |
|--|----------|----|---------------|-------|----------------|------------|---------------|-------|-----------|----------|
| 1. Actuarial Accrued Liability: | | | | | | | | | | |
| Active Multiplier | \$ 75 | \$ | 80 | \$ | 80 | \$ | 80 | \$ | 80 | \$ 81 |
| (a) Active participants | 380,324 | | 455,351 | | 523,917 | | 540,906 | | 582,597 | 631,117 |
| (b) Deferred vested participants | - | | - | | - | | - | | - | - |
| (c) Pensioners | 105,985 | | 119,059 | | 133,426 | | 132,780 | | 137,059 | 141,646 |
| (d) Total | 486,309 | | 574,410 | | 657,342 | | 673,686 | | 719,655 | 772,763 |
| 2. Actuarial Value of Assets | 444,899 | | 504,972 | | 557,208 | | 597,964 | | 617,450 | 670,766 |
| 3. Unfunded Actuarial Accrued Liability: (1d)-(2) | 41,411 | | 69,438 | | 100,134 | | 75,721 | | 102,205 | 101,997 |
| 4. Normal Cost (beg. Of year) | 21,984 | | 25,582 | | 29,106 | | 28,925 | | 30,186 | 31,875 |
| 5. Change in Unfunded AAL during prior year: | | | | | | | | | | |
| (a) Unfunded AAL at prior valuation date | 49,374 | | 41,411 | | 69,438 | | 100,134 | | 75,721 | 102,205 |
| (b) Adjustment for Interest | 3,456 | | 2,795 | | 4,513 | | 6,008 | | 4,733 | 6,388 |
| (c) Normal Cost w/interest less contributions | (13,043) | | (12,093) | | (10,958) | | (2,107) | | (5,360) | (9,177) |
| (d) (Gain)/Loss on investment | (15,114) | | (6,887) | | 3,302 | | 9,156 | | 37,481 | 8,994 |
| (e) (Gain)/Loss on termination | (6,000) | | (5,000) | | (3,000) | | (11,000) | | (10,000) | (12,500) |
| (f) (Gain)/Loss on salary increases less than expected | - | | - | | - | | - | | - | - |
| (g) (Gain)/Loss on mortality | (1,200) | | (1,900) | | 500 | | 750 | | 800 | 700 |
| (h) (Gain)/Loss on retirement | (750) | | (550) | | (300) | | (6,000) | | (1,000) | (2,000) |
| (i) (Gain)/Loss on assumption changes | 24,200 | | 23,400 | | 37,500 | | (21,000) | | - | - |
| (j) (Gain)/Loss on expenses | - | | - | | - | | - | | • | - |
| (k) (Gain)/Loss on all other factors | 487 | | (197) | | (861) | | (220) | | (169) | (404) |
| (I) Change in active benefit multiplier | - | | 28,459 | | - | | - | | - | 7,792 |
| (m) Unfunded AAL at current valuation date | 41,411 | | 69,438 | | 100,134 | | 75,721 | | 102,205 | 101,997 |
| 6. Actuarial Basis | | | | | | | | | | |
| (a) Interest | 6.75% | | 6.50% | | 6.00% | | 6.25% | | 6.25% | 6.25% |
| (b) Salary scale | N/A | | N/A | | N/A | | N/A | | N/A | N/A |
| (c) Consumer Price Index | 3.00% | | 3.00% | | 3.00% | | 3.00% | | 3.00% | 3.00% |
| (d) Mortality | | | | | GAM | 183 | | | | |
| (e) Turnover | | | Bas | ed o | n NOC exper | rienc | e for 1986-1 | 988 | | |
| (f) Retirement age | | | Age 62, with | h app | propriate earl | y reti | irement redu | ction | i, if any | |
| (g) Proportion married and age difference | | 80 |)% married, ı | male | spouses 3 y | ears | older than fe | emale | e spouses | |
| (h) Expenses | | | As | sum | e all expense | s pa | id by compa | ny | | |
| (i) Post-retirement indexing | 1.00% | | 1.00% | | 1.00% | | 1.00% | | 1.00% | 1.00% |
| (j) Asset Valuation Method | | | | | Market valu | e of | assets | | | |
| (k) Actuarial Cost Method | | | | | Unit o | redit | t | | | |

^{*} numbers may not add due to rounding

| Expense Valuation - January 1 (numbers in \$000's) * | | 2005 | | 2006 | | 2007 | | 2008 | | 2009 | 2010 |
|--|---|-----------|----|-----------|-----|----------------|-------|-----------|----|-----------|---|
| Reconciliation of funded status at valuation date: | | | | | | | | | | | |
| (active multiplier) | \$ | 75 | \$ | 80 | \$ | 80 \$ | \$ | 80 | \$ | 80 \$ | 81 |
| (a) Accumulated Benefit Obligation | , | (551,307) | • | (677,386) | • | (686,874) | • | (704,050) | • | (770,203) | (854,387) |
| (b) Projected Benefit Obligation | | | | ` ' ' | | , , , | | , , , | | , , | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| (i) retirees / actives - fully vested | | N/A | | N/A | | N/A | | N/A | | N/A | (811,668) |
| (ii) actives - not fully vested | | N/A | | N/A | | N/A | | N/A | | N/A | (42,719) |
| (iii) total | | (551,307) | | (677,386) | | (686,874) | | (704,050) | | (770,203) | (854,387) |
| (c) Fair Value of Assets | | 444,899 | | 504,972 | | 557,208 | | 597,964 | | 617,450 | 670,766 |
| (d) Funded Status: (b) + (c) | | (106,408) | | (172,414) | | (129,666) | | (106,086) | | (152,753) | (183,621) |
| (e) Unrecognized prior service costs | | 27,240 | | 59,202 | | 51,988 | | 44,775 | | 37,561 | 39,069 |
| (f) Unrecognized (gains)/losses | | 59,924 | | 98,779 | | 59,600 | | 30,683 | | 74,944 | 96,355 |
| (g) Prepaid/(Accrued) expense | | (19,244) | | (14,433) | | N/A | | N/A | | N/A | N/A |
| 2. Pension Expense: | | | | | | | | | | | |
| (a) Service Cost (beg. of year) | | 25,282 | | 30,698 | | 30,464 | | 30,274 | | 32,791 | 36,087 |
| (b) Interest Cost | | 34,255 | | 38,615 | | 40,816 | | 43,579 | | 45,712 | 48,509 |
| (c) Expected return on assets | | (34,232) | | (38,810) | | (33,942) | | (36,448) | | (37,767) | (40,936) |
| (d) Amortization of prior service cost | | 3,837 | | 7,214 | | 7,214 | | 7,214 | | 7,214 | 8,061 |
| (e) Amortization of net actuarial (gain)/loss ** | | 448 | | 2,928 | | - | | - | | - | 1,060 |
| (f) Pension Expense | | 29,589 | | 40,644 | | 44,551 | | 44,620 | | 47,950 | 52,781 |
| 3. Actuarial Basis and Supplemental Data | | | | | | | | | | | |
| (a) Discount rate | | 6,00% | | 5.50% | | 5.75% | | 6.00% | | 5.75% | 5.50% |
| (b) Return on assets | | 7.50% | | 7.50% | | 6.00% | | 6.00% | | 6.00% | 6.00% |
| (c) Salary scale | | N/A | | N/A | | N/A | | N/A | | N/A | N/A |
| (d) Consumer Price Index | | 3.00% | | 3.00% | | 3.00% | | 3.00% | | 3.00% | 3.00% |
| (e) Mortality | | | | | | GAM | | | | | |
| (f) Turnover | | | | | | n NOC experie | | | | | |
| (g) Retirement age | Age 62, with appropriate early retirement reduction, if any | | | | | | | | | | |
| (h) Proportion married and age difference | | | 80 | | | spouses 3 year | | | | e spouses | |
| (i) Expenses | | | | | sum | e all expenses | pa | | ny | | |
| (i) Post-retirement indexing | | 1.00% | | 1.00% | | 1.00% | | 1.00% | | 1.00% | 1.00% |
| (k) Asset Valuation Method | | | | | | Market value | | | | | |
| (I) Actuarial Cost Method | | | | | | Projected ur | nit c | | | | |
| (m) Employer contributions | | 34,400 | | 37,000 | | 32,000 | | 35,000 | | 40,000 | 40,000 |
| (n) Benefit payments | | (11,340) | | (12,000) | | (15,000) | | (16,000) | | (16,000) | (17,000) |

^{*} numbers may not add due to rounding

** gains/losses exceeding 10% of the greater of the Projected Benefit Obligation and the Fair Value of Assets are amortized over the
average future working llifetime of active participants

| | Active | Pensioners/ Beneficiaries | Total |
|--|--------|------------------------------|-------|
| 1. Participants as of January 1, 2005 | 6,295 | 1,034 | 7,329 |
| - New Entrants/Rehires | 150 | _ | 150 |
| - Terminated Nonvested | (80) | - | (80) |
| - Terminated Vested (Lump Sum Cashout) | (75) | - | (75) |
| - Retirement | (35) | 35 | - |
| - Death w/ Beneficiary | (2) | 2 | - |
| - Death w/o Beneficiary | - ' | (11) | (11) |
| - Net change | (42) | 26 | (16) |
| 2. Participants as of January 1, 2006 | 6,253 | 1,060 | 7,313 |
| - New Entrants/Rehires | 148 | - | 148 |
| - Terminated Nonvested | (30) | - | (30) |
| - Terminated Vested (Lump Sum Cashout) | (40) | - | (40) |
| - Retirement | (30) | 30 | - |
| - Death w/ Beneficiary | (1) | 1 | - |
| - Death w/o Beneficiary | - | (8) | (8) |
| - Net change | 47 | 23 | 70 |
| 3. Participants as of January 1, 2007 | 6,300 | 1,083 | 7,383 |
| - New Entrants/Rehires | 130 | _ | 130 |
| - Terminated Nonvested | (25) | - | (25) |
| Terminated Vested (Lump Sum Cashout) | (30) | | (30) |
| - Retirement | (10) | 10 | - |
| - Death w/ Beneficiary | (2) | 1 | (1) |
| - Death w/o Beneficiary | • | (6) | (6) |
| - Net change | 63 | 5 | 68 |
| 4. Participants as of January 1, 2008 | 6,363 | 1,088 | 7,451 |
| - New Entrants/Rehires | 75 | - | 75 |
| - Terminated Nonvested | (40) | - | (40) |
| Terminated Vested (Lump Sum Cashout) | (50) | - | (50) |
| - Retirement | (20) | 20 | - |
| - Death w/ Beneficiary | (2) | 1 | (1) |
| - Death w/o Beneficiary | - | (6) | (6) |
| - Net change | (37) | 15 | (22) |
| 5. Participants as of January 1, 2009 | 6,326 | 1,103 | 7,429 |
| - New Entrants/Rehires | 110 | - | 110 |
| - Terminated Nonvested | (60) | - | (60) |
| Terminated Vested (Lump Sum Cashout) | (60) | - | (60) |
| - Retirement | (30) | 30 | - |
| - Death w/ Beneficiary | (1) | 1 | - |
| - Death w/o Beneficiary | - | (4) | (4) |
| - Net change | (41) | 27 | (14) |
| 6. Participants as of January 1, 2010 | 6,285 | 1,130 | 7,415 |

National Oil Full-Time Hourly Union Pension Plan Age/Svc/Earnings as of January 1, 2010

Age (Years)

| Totals | 330 28,400 | 462 35,100 | 2,045 42,500 | 2,096 46,800 | 1,300 45,000 | 52 26,600 | 6,285 43,000 | |
|--------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| >20 | 1 1 | 1 1 | 441 50,000 | 886 50,000 | 802 50,000 | 7 25,000 | 2,136 49,900 | |
| 15-20 | I I | 62 44,000 | 649 48,000 | 620 50,000 | 177 43,000 | 9 26,000 | 1,517 47,900 | |
| Service (Years) 10-15 | 1 1 | 90 44,000 | 300 43,000 | 275 47,000 | 95 42,000 | 13 29,000 | 773 44,200 | |
| Se 5-10 | 100 34,000 | 110 34,000 | 365 34,000 | 165 34,000 | 66 32,000 | 11 25,000 | 817 33,700 | |
| < 5 | 230 26,000 | 200 29,000 | 290 29,000 | 150 29,000 | 160 29,000 | 12 27,000 | 1,042 28,300 | 49.4 19.8 43,000 |
| | # Participants Average Salary | Avg Age Avg Svc Avg Salary |
| | < 25 | 25-35 | 35-45 | 45-55 | 55-65 | > 65 | Totals | |

National Oil Part-Time DC Pension Plan

Eligibility Immediate

Vesting Immediate

Employee Contributions Employee may defer between 1% to 20% of pay

Employer Contributions 3% of pay

Plan Fund Investment Options The employer invests in funds elected by employee

Account Balance Contributions are accumulated in member's individual

account earning a rate of return based on the

investments elected by the employee

Loans/Withdrawals Not permitted.

Benefit on Termination or Ac

Retirement

Account balance is payable to employee upon termination or retirement. Employee has the option to leave the balance in the fund or withdraw entire balance

immediately upon termination or retirement.

Benefit on Death Account balance is payable to named beneficiary

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|-----------------|-----------------|-----------------|------------------|------------------|-----------------------|
| Participant Summary | | | | | | |
| (a) number participating during prior year | 6,300 | 6,250 | 6,500 | 6,600 | 6,500 | 6,400 |
| (b) average age (c) average pay | 30.5 24,000 | 30,9 26,000 | 28,9 29,000 | 28.5 31,000 | 28.9 31,620 | 29.3 32,300 |
| Change in Plan Assets during Prior Year: | | | | | | |
| | | | | | | |
| Market Value of Assets at January 1 of prior year Employee Contributions during prior year | 42,861 7,560 | 50,608 8,125 | 57,560 9,425 | 63,069 10,230 | 66,220 10.277 | 65,632 10,336 |
| Company Contributions during prior year | 4,536 | 4,875 | 5,655 | 6,138 | 6,166 | 6,202 |
| Benefit Payments during prior year | (13,230) | (13,125) | (13,650) | (13,860) | (13,650) | (13,440) |
| Expenses during prior year | | | - | | | |
| Investment return during prior year | 8,882 | 7,076 | 4,079 | 643 | (3,381) | C 071 |
| Market Value of Assets at January 1 of current year | 50,608 | 57,560 | 63,069 | 66,220 | 65,632 | 5,374 |
| | | 0.,000 | 00,000 | 1% | -5% | 5,374 74,104 8% |

^{*} numbers may not add due to rounding

National Oil Full-Time Salaried and Union Retiree Health Benefit Program

Eligibility Immediate

Earliest Retirement Age 55 and 10 years of service

Retirement benefit Retirees and their spouses may elect to

participate in a self insured health plan,

with 100% the of cost of the plan paid by the employer.

Pre-retirement / termination benefits None

Spousal Coverage Continues for the life of the spouse after death of

an eligible employee

Benefits Covered \$0 deductible; \$0 copay

No lifetime maximum

Office visits Hospital visits

Surgery

Prescription drugs

Life Insurance benefit Effective January 1, 2010: introduced \$50,000 life insurance

benefit payable upon death after retirement

Expense Valuation Results - January 1 (numbers in \$000's) *

| Reconciliation of funded status at valuation date: | | | | | | |
|--|-------------|-------------|----------------|-------------------|-------------|-------------|
| (a) Accumulated Postretirement Benefit Obligation | | | | | | |
| (i) actives - fully vested | (646,104) | (734,147) | (775,708) | (816,512) | (915,361) | (724,363) |
| (ii) actives - not fully vested | N/A | N/A | N/A | N/A | N/A | (316,909) |
| (iii) retirees | (438,277) | (511,869) | (539,740) | (565,677) | (659,480) | (735,661) |
| (iv) total | (1,084,381) | , , , | (1,315,448) | (1,382,189) | (1,574,841) | (1,776,933) |
| (b) Fair Value of Assets | `´´´o´ | O O | 0 | 0 | 0 | 0 |
| (c) Surplus: (a) + (b) | (1,084,381) | (1,246,016) | (1,315,448) | (1,382,189) | (1,574,841) | (1,776,933) |
| (d) Unrecognized prior service costs | 0 | 0 | 0 | oʻ | ` o´ | 20,000 |
| (e) Unrecognized (gain)/loss | 140,417 | 211,932 | 178,855 | 142,116 | 226,210 | 283,624 |
| (f) Prepaid/(Accrued) expense | (943,964) | (1,034,083) | N/A | N/A | N/A | N/A |
| 2. Expense | | | | | | |
| (a) Service cost (beg. of year) | 40,381 | 45,884 | 48,482 | 51,032 | 57,210 | 63,425 |
| (b) Interest cost | 66,883 | 70,449 | 77,650 | 85,153 | 92,923 | 100,340 |
| (c) Expected ROA | 0 | 0 | 0 | 0 | 0 | 0 |
| (d) Amort of prior svc cost | 0 | 0 | 0 | 0 | 0 | 2,682 |
| (e) Amort of unrec (gain)/loss ** | 2,955 | 8,176 | 4,348 | 373 | 6,545 | 10,130 |
| (f) Expense for year | 110,219 | 124,510 | 130,479 | 136,559 | 156,678 | 176,577 |
| 3. Benefit Payments | 20,100 | 22,000 | 27,000 | 28,000 | 32,000 | 32,000 |
| 4. Average Future Working Lifetime to Retirement | 10.82 | 10.68 | 10.88 | 10.44 | 10.50 | 10.46 |
| 5. Average Future Working Lifetime to FEA | 7.82 | 7.68 | 7.88 | 7.44 | 7.50 | 7.46 |
| 6. Average Future Working Lifetime to Fully Vested | N/A | N/A | N/A | N/A | N/A | 7.46 |
| (for those not vested) | | | | | | |
| 7. Actuarial Assumptions: | | | | | | |
| (a) Discount rate | 6.00% | 5.50% | 5.75% | 6.00% | 5.75% | 5.50% |
| (b) Return on assets | N/A | N/A | N/A | N/A | N/A | N/A |
| (c) Medical trend | | | | | | |
| Initial rate | 6.00% | 5.50% | 6.00% | 6.00% | 6.00% | 6.00% |
| Annual decrease | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% |
| Ultimate rate | 4.50% | 4.50% | 4.50% | 4.50% | 4.50% | 4.50% |
| Year ultimate trend rate reached | 2008 | 2008 | 2010 | 2011 | 2012 | 2013 |
| (d) CPI | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| (e) Per capita claims cost | 8,450 | 8,800 | 9,500 | 9,900 | 11,000 | 12,000 |
| (f) Retirement assumption | | | | ears of service | | |
| (g) All other demographic assumptions | | Same | e as those use | d for pension pla | ans | |

^{*} numbers may not add due to rounding

** gains/losses exceeding 10% of the Accumulated Postretirement Benefit Obligation are amortized over the
average future working llifetime of active participants