

# JUOTC - DIABLO CANYON

## Preliminary Mechanical Equipment List Dry Natural Draft Cooling

25762-110-MOX-YA-00001

| Rev | Date      | Reason for Revision        | Originator | Checked | Approved |
|-----|-----------|----------------------------|------------|---------|----------|
| 00B | 7/24/2013 | Issued for Estimate Report | RP         | —       | RP       |
| 00A | 7/10/2013 | Issued for Estimate        | RP         | -       | RP       |

JUOTC - DIABLO CANYON  
Preliminary Mechanical Equipment List

25752-110-M0X-YA-00001, Rev. 00B

System Codes

Commodity Codes

|    |                   |    |                                                         |
|----|-------------------|----|---------------------------------------------------------|
| PF | Fire Protection   | ME | Heat Exchange Component (Cooling Tower, Heat Exchanger) |
| WL | Circulating Water | MP | Pump                                                    |
| WO | Sea Water         | MT | Tank                                                    |

NOTES:

1. Commodity Codes shown are Bechtel standard codes. Bechtel Commodity codes have been assigned to existing plant equipment numbers to aid in equipment list sorts.

| Quantity | Bidder Quote to be Used | Unit | Sys Code | Com. Code 1 | Seq. No. | New/ Existing | Description                                        | Type                                                 | Capacity (%) - Per Unit | Drive Motor Size HP (or kW) | Comments                                                         |
|----------|-------------------------|------|----------|-------------|----------|---------------|----------------------------------------------------|------------------------------------------------------|-------------------------|-----------------------------|------------------------------------------------------------------|
| 1        | Xylem Quote             | 1    | WL       | MP          | 001A     | New           | CIRCULATING WATER PUMP - Unit 1                    | Fabricated volute, 215,700 gpm, 115 ft TDG           | 1 X 25%                 | 7250                        | Pump to be located in new Unit 1 house                           |
| 1        | Xylem Quote             | 1    | WL       | MP          | 001B     | New           | CIRCULATING WATER PUMP - Unit 1                    | Fabricated volute, 215,700 gpm, 115 ft TDG           | 1 X 25%                 | 7250                        | Pump to be located in new Unit 1 house                           |
| 1        | Xylem Quote             | 1    | WL       | MP          | 001C     | New           | CIRCULATING WATER PUMP - Unit 1                    | Fabricated volute, 215,700 gpm, 115 ft TDG           | 1 X 25%                 | 7250                        | Pump to be located in new Unit 1 house                           |
| 1        | Xylem Quote             | 1    | WL       | MP          | 001D     | New           | CIRCULATING WATER PUMP - Unit 1                    | Fabricated volute, 215,700 gpm, 115 ft TDG           | 1 X 25%                 | 7250                        | Pump to be located in new Unit 1 house                           |
| 1        | Xylem Quote             | 2    | WL       | MP          | 001A     | New           | CIRCULATING WATER PUMP - Unit 2                    | Fabricated volute, 215,700 gpm, 115 ft TDG           | 1 X 25%                 | 7250                        | Pump to be located in new Unit 1 house                           |
| 1        | Xylem Quote             | 2    | WL       | MP          | 001B     | New           | CIRCULATING WATER PUMP - Unit 2                    | Fabricated volute, 215,700 gpm, 115 ft TDG           | 1 X 25%                 | 7250                        | Pump to be located in new Unit 1 house                           |
| 1        | Xylem Quote             | 2    | WL       | MP          | 001C     | New           | CIRCULATING WATER PUMP - Unit 2                    | Fabricated volute, 215,700 gpm, 115 ft TDG           | 1 X 25%                 | 7250                        | Pump to be located in new Unit 1 house                           |
| 1        | Xylem Quote             | 2    | WL       | MP          | 001D     | New           | CIRCULATING WATER PUMP - Unit 2                    | Fabricated volute, 215,700 gpm, 115 ft TDG           | 1 X 25%                 | 7250                        | Pump to be located in new Unit 1 house                           |
| 1        | GEA - CT                | 1    | WL       | ME          | 001A     | New           | NATURAL DRAFT COOLING TOWER - Unit 1               | Hyperbolic, metal tower, 590 ft diameter             | 1 X 33%                 |                             | Tower may be located adjacent to each other with minimal spacing |
| 1        | GEA - CT                | 1    | WL       | ME          | 001B     | New           | NATURAL DRAFT COOLING TOWER - Unit 1               | Hyperbolic, metal tower, 590 ft diameter             | 1 X 33%                 |                             | Tower may be located adjacent to each other with minimal spacing |
| 1        | GEA - CT                | 2    | WL       | ME          | 001B     | New           | NATURAL DRAFT COOLING TOWER - Unit 2               | Hyperbolic, metal tower, 590 ft diameter             | 1 X 33%                 |                             | Tower may be located adjacent to each other with minimal spacing |
| 1        | GEA - CT                | 2    | WL       | ME          | 001C     | New           | NATURAL DRAFT COOLING TOWER - Unit 2               | Hyperbolic, metal tower, 590 ft diameter             | 1 X 33%                 |                             | Tower may be located adjacent to each other with minimal spacing |
| 1        | GEA - CT                | 1    | WL       | MP          |          | New           | COOLING TOWER STORATE TANK TRANSFER PUMPS - UNIT 1 | TBD                                                  | 1 X 25%                 | 100 hp                      | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MP          |          | New           | COOLING TOWER STORATE TANK TRANSFER PUMPS - UNIT 1 | TBD                                                  | 1 X 25%                 | 100 hp                      | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MP          |          | New           | COOLING TOWER STORATE TANK TRANSFER PUMPS - UNIT 1 | TBD                                                  | 1 X 25%                 | 100 hp                      | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MP          |          | New           | COOLING TOWER STORATE TANK TRANSFER PUMPS - UNIT 1 | TBD                                                  | 1 X 25%                 | 100 hp                      | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 2    | WL       | MP          |          | New           | COOLING TOWER STORATE TANK TRANSFER PUMPS - UNIT 2 | TBD                                                  | 1 X 25%                 | 100 hp                      | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 2    | WL       | MP          |          | New           | COOLING TOWER STORATE TANK TRANSFER PUMPS - UNIT 2 | TBD                                                  | 1 X 25%                 | 100 hp                      | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 2    | WL       | MP          |          | New           | COOLING TOWER STORATE TANK TRANSFER PUMPS - UNIT 2 | TBD                                                  | 1 X 25%                 | 100 hp                      | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 2    | WL       | MP          |          | New           | COOLING TOWER STORATE TANK TRANSFER PUMPS - UNIT 2 | TBD                                                  | 1 X 25%                 | 100 hp                      | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |
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| 1        | GEA - CT                | 1    | WL       | MT          |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 1            | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope                                 |

| Quantity | Bidder Quote to be Used | Unit | Sys Code | Com. Code <sup>1</sup> | Seq. No. | New/ Existing | Description                                      | Type                                                 | Capacity (%) - Per Unit | Drive Motor Size HP (or kW) | Comments                         |
|----------|-------------------------|------|----------|------------------------|----------|---------------|--------------------------------------------------|------------------------------------------------------|-------------------------|-----------------------------|----------------------------------|
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | DRAIN TANKS FOR COOLING TOWERS - UNIT 2          | Underground, 53,000 gal, 7 per tower, Dimensions TBD | 1 x 7 %                 | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 1    | WL       | MT                     |          | New           | HEAD TANKS FOR COOLING TOWERS - UNIT 1           | Underground, 12,500 gal, 3 per tower, Dimensions TBD | 1 x 16.7 %              | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 1    | WL       | MT                     |          | New           | HEAD TANKS FOR COOLING TOWERS - UNIT 1           | Underground, 12,500 gal, 3 per tower, Dimensions TBD | 1 x 16.7 %              | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 1    | WL       | MT                     |          | New           | HEAD TANKS FOR COOLING TOWERS - UNIT 1           | Underground, 12,500 gal, 3 per tower, Dimensions TBD | 1 x 16.7 %              | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 1    | WL       | MT                     |          | New           | HEAD TANKS FOR COOLING TOWERS - UNIT 1           | Underground, 12,500 gal, 3 per tower, Dimensions TBD | 1 x 16.7 %              | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 1    | WL       | MT                     |          | New           | HEAD TANKS FOR COOLING TOWERS - UNIT 1           | Underground, 12,500 gal, 3 per tower, Dimensions TBD | 1 x 16.7 %              | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 1    | WL       | MT                     |          | New           | HEAD TANKS FOR COOLING TOWERS - UNIT 1           | Underground, 12,500 gal, 3 per tower, Dimensions TBD | 1 x 16.7 %              | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | HEAD TANKS FOR COOLING TOWERS - UNIT 2           | Underground, 12,500 gal, 3 per tower, Dimensions TBD | 1 x 16.7 %              | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | HEAD TANKS FOR COOLING TOWERS - UNIT 2           | Underground, 12,500 gal, 3 per tower, Dimensions TBD | 1 x 16.7 %              | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | HEAD TANKS FOR COOLING TOWERS - UNIT 2           | Underground, 12,500 gal, 3 per tower, Dimensions TBD | 1 x 16.7 %              | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | HEAD TANKS FOR COOLING TOWERS - UNIT 2           | Underground, 12,500 gal, 3 per tower, Dimensions TBD | 1 x 16.7 %              | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | HEAD TANKS FOR COOLING TOWERS - UNIT 2           | Underground, 12,500 gal, 3 per tower, Dimensions TBD | 1 x 16.7 %              | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MT                     |          | New           | HEAD TANKS FOR COOLING TOWERS - UNIT 2           | Underground, 12,500 gal, 3 per tower, Dimensions TBD | 1 x 16.7 %              | N/A                         | Included in Tower vendor's scope |
| 1        | GEA - CT                | 1    | WL       | MP                     |          | New           | COOLING TOWER WASH SYSTEM CLEANING PUMP - UNIT 1 |                                                      | 1 X 50%                 | 30 hp                       | Included in Tower vendor's scope |
| 1        | GEA - CT                | 1    | WL       | MP                     |          | New           | COOLING TOWER WASH SYSTEM CLEANING PUMP - UNIT 1 |                                                      | 1 X 50%                 | 30 hp                       | Included in Tower vendor's scope |
| 1        | GEA - CT                | 2    | WL       | MP                     |          | New           | COOLING TOWER WASH SYSTEM CLEANING PUMP - UNIT 2 |                                                      | 1 X 50%                 | 30 hp                       | Included in Tower vendor's scope |

| Quantity | Bidder Quote to be Used | Unit | Sys Code | Com. Code 1 | Seq. No. | New/ Existing | Description                                      | Type                                                                    | Capacity (%) - Per Unit | Drive Motor Size HP (or kW) | Comments                                                                                                                |
|----------|-------------------------|------|----------|-------------|----------|---------------|--------------------------------------------------|-------------------------------------------------------------------------|-------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 1        | GEA - CT                | 2    | WL       | MP          |          | New           | COOLING TOWER WASH SYSTEM CLEANING PUMP - UNIT 2 |                                                                         | 1 X 50%                 | 30 hp                       | Included In Tower vendor's scope                                                                                        |
| 1        | Estimating              | 1    | WL       | MP          | 002A     |               | COOLING TOWER MAKEUP PUMP - UNIT 1               | Horizontal Centrifugal: 500 gpm, 100 TDH                                | 1 x 100%                | 25                          | Make up from existing plant water source                                                                                |
| 1        | Estimating              | 1    | WL       | MP          | 002B     |               | COOLING TOWER MAKEUP PUMP - UNIT 1               | Horizontal Centrifugal: 500 gpm, 100 TDH                                | 1 x 100%                | 25                          | Make up from existing plant water source                                                                                |
| 1        | Estimating              | 2    | WL       | MP          | 002A     |               | COOLING TOWER MAKEUP PUMP - UNIT 2               | Horizontal Centrifugal: 500 gpm, 100 TDH                                | 1 x 100%                | 25                          | Make up from existing plant water source                                                                                |
| 1        | Estimating              | 2    | WL       | MP          | 002B     |               | COOLING TOWER MAKEUP PUMP - UNIT 2               | Horizontal Centrifugal: 500 gpm, 100 TDH                                | 1 x 100%                | 25                          | Make up from existing plant water source                                                                                |
| 1        | ITT-Goulds/Flowsolve    | 1    | WO       | MP          | 001A     | New           | SALT WATER COOLING PUMP - UNIT 1                 | Vertical Turbine: 10,200 gpm, TDH: 100 feet                             | 1 x 100%                | 350                         | New pumps to be located in intake structure to service only the service water heat exchangers and the condensate cooler |
| 1        | ITT-Goulds/Flowsolve    | 1    | WO       | MP          | 001B     | New           | SALT WATER COOLING PUMP - UNIT 1                 | Vertical Turbine: 10,200 gpm, TDH: 100 feet                             | 1 x 100%                | 350                         | New pumps to be located in intake structure to service only the service water heat exchangers and the condensate cooler |
| 1        | ITT-Goulds/Flowsolve    | 2    | WO       | MP          | 001A     | New           | SALT WATER COOLING PUMP - UNIT 2                 | Vertical Turbine: 10,200 gpm, TDH: 100 feet                             | 1 x 100%                | 350                         | New pumps to be located in intake structure to service only the service water heat exchangers and the condensate cooler |
| 1        | ITT-Goulds/Flowsolve    | 2    | WO       | MP          | 001B     | New           | SALT WATER COOLING PUMP - UNIT 2                 | Vertical Turbine: 10,200 gpm, TDH: 100 feet                             | 1 x 100%                | 350                         | New pumps to be located in intake structure to service only the service water heat exchangers and the condensate cooler |
| 1        | GEA - CT                | 1    | WL       | HV          |          | New           | TOWER MOV ISOLATION VALVE - UNIT 1               | MOV Butterfly, 4 per tower sector x 11 sectors per tower = 88 per unit  | 1 x .57%                |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 2    | WL       | HV          |          | New           | TOWER MOV ISOLATION VALVE - UNIT 2               | MOV Butterfly, 4 per tower sector x 11 sectors per tower = 88 per unit  | 1 x .57%                |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 1    | WL       | HV          |          | New           | MOV MAKE-UP VALVE - UNIT 1                       | MOV Butterfly, 2 per tower (one to cleaning tank, one to storage tanks) | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 1    | WL       | HV          |          | New           | MOV MAKE-UP VALVE - UNIT 1                       | MOV Butterfly, 2 per tower (one to cleaning tank, one to storage tanks) | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 1    | WL       | HV          |          | New           | MOV MAKE-UP VALVE - UNIT 1                       | MOV Butterfly, 2 per tower (one to cleaning tank, one to storage tanks) | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 1    | WL       | HV          |          | New           | MOV MAKE-UP VALVE - UNIT 1                       | MOV Butterfly, 2 per tower (one to cleaning tank, one to storage tanks) | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 2    | WL       | HV          |          | New           | MOV MAKE-UP VALVE - UNIT 2                       | MOV Butterfly, 2 per tower (one to cleaning tank, one to storage tanks) | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 2    | WL       | HV          |          | New           | MOV MAKE-UP VALVE - UNIT 2                       | MOV Butterfly, 2 per tower (one to cleaning tank, one to storage tanks) | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 2    | WL       | HV          |          | New           | MOV MAKE-UP VALVE - UNIT 2                       | MOV Butterfly, 2 per tower (one to cleaning tank, one to storage tanks) | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 2    | WL       | HV          |          | New           | MOV MAKE-UP VALVE - UNIT 2                       | MOV Butterfly, 2 per tower (one to cleaning tank, one to storage tanks) | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 1    | WL       | HV          |          | New           | MOV TRANSFER PUMP VALVES - UNIT 1                | MOV Butterfly, 2 per tower                                              | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 1    | WL       | HV          |          | New           | MOV TRANSFER PUMP VALVES - UNIT 1                | MOV Butterfly, 2 per tower                                              | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 1    | WL       | HV          |          | New           | MOV TRANSFER PUMP VALVES - UNIT 1                | MOV Butterfly, 2 per tower                                              | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 1    | WL       | HV          |          | New           | MOV TRANSFER PUMP VALVES - UNIT 1                | MOV Butterfly, 2 per tower                                              | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 2    | WL       | HV          |          | New           | MOV TRANSFER PUMP VALVES - UNIT 2                | MOV Butterfly, 2 per tower                                              | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 2    | WL       | HV          |          | New           | MOV TRANSFER PUMP VALVES - UNIT 2                | MOV Butterfly, 2 per tower                                              | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 2    | WL       | HV          |          | New           | MOV TRANSFER PUMP VALVES - UNIT 2                | MOV Butterfly, 2 per tower                                              | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 1        | GEA - CT                | 2    | WL       | HV          |          | New           | MOV TRANSFER PUMP VALVES - UNIT 2                | MOV Butterfly, 2 per tower                                              | 1 x 25%                 |                             | Isolation valves for each sector of natural draft tower included in tower vendor's scope.                               |
| 32       | Estimating              |      | PF       | PY          |          |               | Fire Hydrant                                     | Dry Barrel Type                                                         |                         |                             | One hydrant every 300 ft. New Fire piping length 9775 ft                                                                |
| 1        | Estimating              | 1    | AC       | MU          |          | New           | Low Pressure Steam Turbine                       |                                                                         |                         |                             | L(0) blades will need to be removed                                                                                     |
| 1        | Estimating              | 2    | AC       | MU          |          | New           | Low Pressure Steam Turbine                       |                                                                         |                         |                             | L(0) blades will need to be removed                                                                                     |

| Quantity | Bidder Quote to be Used | Unit | Sys Code | Com. Code 1 | Seq. No. | New/ Existing | Description | Type | Capacity (% - Per Unit | Drive Motor Size HP (or kW) | Comments |
|----------|-------------------------|------|----------|-------------|----------|---------------|-------------|------|------------------------|-----------------------------|----------|
|          |                         |      |          |             |          |               |             |      |                        |                             |          |
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|          |                         |      |          |             |          |               |             |      |                        |                             |          |

# JUOTC - DIABLO CANYON

## Preliminary Mechanical Equipment List Dry Mechanical Cooling

25762-110-MOX-YA-00002

| Rev | Date      | Reason for Revision        | Originator | Checked | Approved |
|-----|-----------|----------------------------|------------|---------|----------|
| 00B | 7/10/2013 | Issued for Estimate Report | RP         | -       | RP       |
| 00A | 7/10/2013 | Issued for Estimate        | RP         | -       | RP       |

JUOTC DIABLO CANYON  
Preliminary Mechanical Equipment List

25762-110-MOX-YA-00002, Rev. 00B

System Codes

Commodity Codes

|    |                   |    |                                                         |
|----|-------------------|----|---------------------------------------------------------|
| WL | Circulating Water | ME | Heat Exchange Component (Cooling Tower, Heat Exchanger) |
| WO | Sea Water         | MP | Pump                                                    |
|    |                   | MT | Tank                                                    |

NOTES:

1. Commodity Codes shown are Bechtel standard codes. Bechtel Commodity codes have been assigned to existing plant equipment numbers to aid in equipment list sorts.



Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC Study  
Dry Mechanical (Forced Draft) Cooling

25762-110-M0X-YA-00002, Revision 00B

| Quantity | Bllder Quote to be Used             | Unit | Sys Code | Com. Code 1 | Seq. No. | New/ Existing | Description                                      | Type                                             | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                                                                                                |
|----------|-------------------------------------|------|----------|-------------|----------|---------------|--------------------------------------------------|--------------------------------------------------|-------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 1        | QUOTE - PUMPS XYLEM                 | 1    | WL       | MP          | 001A     | New           | CIRCULATING WATER PUMP - Unit 1                  | Fabricated volute, 215700 gpm, 115 ft TDH        | 1 X 25%                 | 7250                         | Pump to be located in new Unit 1 pump building                                                                          |
| 1        | QUOTE - PUMPS XYLEM                 | 1    | WL       | MP          | 001B     | New           | CIRCULATING WATER PUMP - Unit 1                  | Fabricated volute, 215700 gpm, 115 ft TDH        | 1 X 25%                 | 7250                         | Pump to be located in new Unit 1 pump building                                                                          |
| 1        | QUOTE - PUMPS XYLEM                 | 1    | WL       | MP          | 001C     | New           | CIRCULATING WATER PUMP - Unit 1                  | Fabricated volute, 215700 gpm, 115 ft TDH        | 1 X 25%                 | 7250                         | Pump to be located in new Unit 1 pump building                                                                          |
| 1        | QUOTE - PUMPS XYLEM                 | 1    | WL       | MP          | 001D     | New           | CIRCULATING WATER PUMP - Unit 1                  | Fabricated volute, 215700 gpm, 115 ft TDH        | 1 X 25%                 | 7250                         | Pump to be located in new Unit 1 pump building                                                                          |
| 1        | QUOTE - PUMPS XYLEM                 | 2    | WL       | MP          | 001A     | New           | CIRCULATING WATER PUMP - Unit 2                  | Fabricated volute, 215700 gpm, 115 ft TDH        | 1 X 25%                 | 7250                         | Pump to be located in new Unit 2 pump building                                                                          |
| 1        | QUOTE - PUMPS XYLEM                 | 2    | WL       | MP          | 001B     | New           | CIRCULATING WATER PUMP - Unit 2                  | Fabricated volute, 215700 gpm, 115 ft TDH        | 1 X 25%                 | 7250                         | Pump to be located in new Unit 2 pump building                                                                          |
| 1        | QUOTE - PUMPS XYLEM                 | 2    | WL       | MP          | 001C     | New           | CIRCULATING WATER PUMP - Unit 2                  | Fabricated volute, 215700 gpm, 115 ft TDH        | 1 X 25%                 | 7250                         | Pump to be located in new Unit 2 pump building                                                                          |
| 1        | QUOTE - PUMPS XYLEM                 | 2    | WL       | MP          | 001D     | New           | CIRCULATING WATER PUMP - Unit 2                  | Fabricated volute, 215700 gpm, 115 ft TDH        | 1 X 25%                 | 7250                         | Pump to be located in new Unit 2 pump building                                                                          |
| 1        | QUOTE -CT GEA                       | 1    | WL       | ME          | 001A     | New           | MECHANICAL DRAFT COOLING TOWER - UNIT 1          | 1200 ft x 100 ft, 60 fans, 250 hp motor each fan | 1 X 50%                 | 250 each fan x 60            | Rectangular arrangements                                                                                                |
| 1        | QUOTE -CT GEA                       | 1    | WL       | ME          | 001B     | New           | MECHANICAL DRAFT COOLING TOWER - UNIT 1          | 1200 ft x 100 ft, 60 fans, 250 hp motor each fan | 1 X 50%                 | 250 each fan x 60            | Rectangular arrangements                                                                                                |
| 1        | QUOTE -CT GEA                       | 2    | WL       | ME          | 001A     | New           | MECHANICAL DRAFT COOLING TOWER - UNIT 2          | 1200 ft x 100 ft, 60 fans, 250 hp motor each fan | 1 X 50%                 | 250 each fan x 60            | Rectangular arrangements                                                                                                |
| 1        | QUOTE -CT GEA                       | 2    | WL       | ME          | 001B     | New           | MECHANICAL DRAFT COOLING TOWER - UNIT 2          | 1200 ft x 100 ft, 60 fans, 250 hp motor each fan | 1 X 50%                 | 250 each fan x 60            | Rectangular arrangements                                                                                                |
| 1        | QUOTE - PUMPS ITT- Goulds/Flowsolve | 1    | WO       | MP          | 001A     | New           | SALT WATER COOLING PUMP - UNIT 1                 | Vertical Turbine: 10200 gpm, TDH 100             | 1 x 100%                | 350                          | New pumps to be located in intake structure to service only the service water heat exchangers and the condensate cooler |
| 1        | QUOTE - PUMPS ITT- Goulds/Flowsolve | 1    | WO       | MP          | 001B     | New           | SALT WATER COOLING PUMP - UNIT 1                 | Vertical Turbine: 10200 gpm, TDH 100             | 1 x 100%                | 350                          | New pumps to be located in intake structure to service only the service water heat exchangers and the condensate cooler |
| 1        | QUOTE - PUMPS ITT- Goulds/Flowsolve | 2    | WO       | MP          | 001A     | New           | SALT WATER COOLING PUMP - UNIT 2                 | Vertical Turbine: 10200 gpm, TDH 100             | 1 x 100%                | 350                          | New pumps to be located in intake structure to service only the service water heat exchangers and the condensate cooler |
| 1        | QUOTE - PUMPS ITT- Goulds/Flowsolve | 2    | WO       | MP          | 001B     | New           | SALT WATER COOLING PUMP - UNIT 2                 | Vertical Turbine: 10200 gpm, TDH 100             | 1 x 100%                | 350                          | New pumps to be located in intake structure to service only the service water heat exchangers and the condensate cooler |
| 1        | Estimating                          | 1    | WL       | MP          | 002A     | New           | COOLING TOWER MAKEUP PUMP - UNIT 1               | Centrifugal Horizontal: 500 gpm, 100 TDH         | 1 x 100%                | 25                           | Make up from existing plant water source                                                                                |
| 1        | Estimating                          | 1    | WL       | MP          | 002B     | New           | COOLING TOWER MAKEUP PUMP - UNIT 1               | Centrifugal Horizontal: 500 gpm, 100 TDH         | 1 x 100%                | 25                           | Make up from existing plant water source                                                                                |
| 1        | Estimating                          | 2    | WL       | MP          | 002A     | New           | COOLING TOWER MAKEUP PUMP - UNIT 2               | Centrifugal Horizontal: 500 gpm, 100 TDH         | 1 x 100%                | 25                           | Make up from existing plant water source                                                                                |
| 1        | Estimating                          | 2    | WL       | MP          | 002B     | New           | COOLING TOWER MAKEUP PUMP - UNIT 2               | Centrifugal Horizontal: 500 gpm, 100 TDH         | 1 x 100%                | 25                           | Make up from existing plant water source                                                                                |
| 1        | QUOTE -CT GEA                       | 1    | WL       |             |          | New           | COOLING TOWER SYSTEM EXPANSION TANK - UNIT 1     | 12,500 ft3                                       | 1 x 50%                 |                              | Included in Tower vendor's scope                                                                                        |
| 1        | QUOTE -CT GEA                       | 1    | WL       |             |          | New           | COOLING TOWER SYSTEM EXPANSION TANK - UNIT 1     | 12,500 ft3                                       | 1 x 50%                 |                              | Included in Tower vendor's scope                                                                                        |
| 1        | QUOTE -CT GEA                       | 2    | WL       |             |          | New           | COOLING TOWER SYSTEM EXPANSION TANK - UNIT 2     | 12,500 ft3                                       | 1 x 50%                 |                              | Included in Tower vendor's scope                                                                                        |
| 1        | QUOTE -CT GEA                       | 2    | WL       |             |          | New           | COOLING TOWER SYSTEM EXPANSION TANK - UNIT 2     | 12,500 ft3                                       | 1 x 50%                 |                              | Included in Tower vendor's scope                                                                                        |
| 1        | QUOTE -CT GEA                       | 1    | WL       |             |          | New           | UNDERGROUND WATER STORAGE TANK - UNIT 1          | 64,000 ft3                                       | 1 x 50%                 |                              | Included in Tower vendor's scope                                                                                        |
| 1        | QUOTE -CT GEA                       | 2    | WL       |             |          | New           | UNDERGROUND WATER STORAGE TANK - UNIT 2          | 64,000 ft3                                       | 1 x 50%                 |                              | Included in Tower vendor's scope                                                                                        |
| 1        | QUOTE -CT GEA                       | 1    | WL       |             |          | New           | COOLING TOWER DRAIN TANK TRANSFER PUMP - UNIT 1  |                                                  | 1 x 50%                 | 100 hp                       | Included in Tower vendor's scope                                                                                        |
| 1        | QUOTE -CT GEA                       | 1    | WL       |             |          | New           | COOLING TOWER DRAIN TANK TRANSFER PUMP - UNIT 1  |                                                  | 1 x 50%                 | 100 hp                       | Included in Tower vendor's scope                                                                                        |
| 1        | QUOTE -CT GEA                       | 2    | WL       |             |          | New           | COOLING TOWER DRAIN TANK TRANSFER PUMP - UNIT 2  |                                                  | 1 x 50%                 | 100 hp                       | Included in Tower vendor's scope                                                                                        |
| 1        | QUOTE -CT GEA                       | 2    | WL       |             |          | New           | COOLING TOWER DRAIN TANK TRANSFER PUMP - UNIT 2  |                                                  | 1 x 50%                 | 100 hp                       | Included in Tower vendor's scope                                                                                        |
| 1        | QUOTE -CT GEA                       | 1    | WL       |             |          | New           | COOLING TOWER WASH SYSTEM CLEANING PUMP - UNIT 1 |                                                  | 1 X 100%                | 30 hp                        | Included in Tower vendor's scope                                                                                        |
| 1        | QUOTE -CT GEA                       | 2    | WL       |             |          | New           | COOLING TOWER WASH SYSTEM CLEANING PUMP - UNIT 2 |                                                  | 1 X 100%                | 30 hp                        | Included in Tower vendor's scope                                                                                        |
| 1        | QUOTE -CT GEA                       | 1    | WL       |             |          | New           | MOV MAKE-UP ISOLATION VALVE - UNIT 1             | Butterfly 1 per storage tank x 1 tank per tower  | 1 x 50%                 |                              | Included in Tower vendor's scope                                                                                        |

Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC Study  
Dry Mechanical (Forced Draft) Cooling

25762-110-M0X-YA-00002, Revision 00B

| Quantity | Bidder Quote to be Used | Unit | Sys Code | Com. Code <sup>1</sup> | Seq. No. | New/ Existing | Description                                         | Type                                                                  | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                             |
|----------|-------------------------|------|----------|------------------------|----------|---------------|-----------------------------------------------------|-----------------------------------------------------------------------|-------------------------|------------------------------|--------------------------------------|
| 1        | QUOTE -CT<br>GEA        | 1    | WL       |                        |          | New           | MOV MAKE-UP ISOLATION VALVE - UNIT 1                | Butterfly 1 per storage tank x 1 tank per tower                       | 1 x 50%                 |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | MOV MAKE-UP ISOLATION VALVE - UNIT 2                | Butterfly 1 per storage tank x 1 tank per tower                       | 1 x 50%                 |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | MOV MAKE-UP ISOLATION VALVE - UNIT 2                | Butterfly 1 per storage tank x 1 tank per tower                       | 1 x 50%                 |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 1    | WL       |                        |          | New           | MOV TOWER HALF RING ISOLATION VALVE - UNIT 1        | Butterfly 2 per tower                                                 | 1 x 25%                 |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 1    | WL       |                        |          | New           | MOV TOWER HALF RING ISOLATION VALVE - UNIT 1        | Butterfly 2 per tower                                                 | 1 x 25%                 |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 1    | WL       |                        |          | New           | MOV TOWER HALF RING ISOLATION VALVE - UNIT 1        | Butterfly 2 per tower                                                 | 1 x 25%                 |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 1    | WL       |                        |          | New           | MOV TOWER HALF RING ISOLATION VALVE - UNIT 1        | Butterfly 2 per tower                                                 | 1 x 25%                 |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | MOV TOWER HALF RING ISOLATION VALVE - UNIT 2        | Butterfly 2 per tower                                                 | 1 x 25%                 |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | MOV TOWER HALF RING ISOLATION VALVE - UNIT 2        | Butterfly 2 per tower                                                 | 1 x 25%                 |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | MOV TOWER HALF RING ISOLATION VALVE - UNIT 2        | Butterfly 2 per tower                                                 | 1 x 25%                 |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 1    | WL       |                        |          | New           | MOV STORAGE TANK DRAIN AND EXCESS VALVES - UNIT 1   | Butterfly 3 per storage tank x 1 tank per tower                       | 1 x 16.7%               |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 1    | WL       |                        |          | New           | MOV STORAGE TANK DRAIN AND EXCESS VALVES - UNIT 1   | Butterfly 3 per storage tank x 1 tank per tower                       | 1 x 16.7%               |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 1    | WL       |                        |          | New           | MOV STORAGE TANK DRAIN AND EXCESS VALVES - UNIT 1   | Butterfly 3 per storage tank x 1 tank per tower                       | 1 x 16.7%               |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 1    | WL       |                        |          | New           | MOV STORAGE TANK DRAIN AND EXCESS VALVES - UNIT 1   | Butterfly 3 per storage tank x 1 tank per tower                       | 1 x 16.7%               |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 1    | WL       |                        |          | New           | MOV STORAGE TANK DRAIN AND EXCESS VALVES - UNIT 1   | Butterfly 3 per storage tank x 1 tank per tower                       | 1 x 16.7%               |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | 2 MOV STORAGE TANK DRAIN AND EXCESS VALVES - UNIT 3 | Butterfly 3 per storage tank x 1 tank per tower                       | 1 x 16.7%               |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | MOV STORAGE TANK DRAIN AND EXCESS VALVES - UNIT 2   | Butterfly 3 per storage tank x 1 tank per tower                       | 1 x 16.7%               |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | MOV STORAGE TANK DRAIN AND EXCESS VALVES - UNIT 2   | Butterfly 3 per storage tank x 1 tank per tower                       | 1 x 16.7%               |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | MOV STORAGE TANK DRAIN AND EXCESS VALVES - UNIT 2   | Butterfly 3 per storage tank x 1 tank per tower                       | 1 x 16.7%               |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | MOV STORAGE TANK DRAIN AND EXCESS VALVES - UNIT 2   | Butterfly 3 per storage tank x 1 tank per tower                       | 1 x 16.7%               |                              | Included in Tower vendor's scope     |
| 1        | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | MOV STORAGE TANK DRAIN AND EXCESS VALVES - UNIT 2   | Butterfly 3 per storage tank x 1 tank per tower                       | 1 x 16.7%               |                              | Included in Tower vendor's scope     |
| 120      | QUOTE -CT<br>GEA        | 1    | WL       |                        |          | New           | MOV SECTOR ISOLATION VALVE - UNIT 1, Tower A        | Butterfly 4 per cooling sector x 30 sectors per tower = 120 per tower | 1 x 0.42%               |                              | Included in Tower vendor's scope     |
| 120      | QUOTE -CT<br>GEA        | 1    | WL       |                        |          | New           | MOV SECTOR ISOLATION VALVE - UNIT 1, Tower B        | Butterfly 4 per cooling sector x 30 sectors per tower = 120 per tower | 1 x 0.42%               |                              | Included in Tower vendor's scope     |
| 120      | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | MOV SECTOR ISOLATION VALVE - UNIT 2, Tower A        | Butterfly 4 per cooling sector x 30 sectors per tower = 120 per tower | 1 x 0.42%               |                              | Included in Tower vendor's scope     |
| 120      | QUOTE -CT<br>GEA        | 2    | WL       |                        |          | New           | MOV SECTOR ISOLATION VALVE - UNIT 2, Tower B        | Butterfly 4 per cooling sector x 30 sectors per tower = 120 per tower | 1 x 0.42%               |                              | Included in Tower vendor's scope     |
| 32       | Estimating              | 0    | PF       |                        |          | New           | Fire Hydrants                                       | Dry barrel type                                                       |                         |                              | Every 300 ft. New fire pipe 9772 ft. |
| 1        | Estimating              | 1    | AC       | MU                     |          | New           | Low Pressure Steam Turbine                          |                                                                       |                         |                              | L(0) blades will need to be removed  |
| 1        | Estimating              | 2    | AC       | MU                     |          | New           | Low Pressure Steam Turbine                          |                                                                       |                         |                              | L(0) blades will need to be removed  |

Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC Study  
 Dry Mechanical (Forced Draft) Cooling

25762-110-M0X-YA-00002, Revision 00B

| Quantity | Bidder Quote to be Used | Unit | Sys Code | Com. Code <sup>1</sup> | Seq. No. | New/ Existing | Description | Type | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments |
|----------|-------------------------|------|----------|------------------------|----------|---------------|-------------|------|-------------------------|------------------------------|----------|
|          |                         |      |          |                        |          |               |             |      |                         |                              |          |
|          |                         |      |          |                        |          |               |             |      |                         |                              |          |
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|          |                         |      |          |                        |          |               |             |      |                         |                              |          |

# JUOTC - DIABLO CANYON

## Preliminary Mechanical Equipment List Wet Natural Draft Cooling

25762-110-M0X-YA-00003

| Rev | Date      | Reason for Revision        | Originator | Checked | Approved |
|-----|-----------|----------------------------|------------|---------|----------|
| 00B | 7/24/2013 | Issued for Estimate Report | RP         | -       | RP       |
| 00A | 7/10/2013 | Issued for Estimate        | RP         | -       | RP       |

JUOTC - DIABLO CANYON  
Preliminary Mechanical Equipment List

25762-110-MOX-YA-00003, Rev. 00B

System Codes

|    |                        |
|----|------------------------|
| AD | Condensate             |
| PF | Fire Protection        |
| PI | Plant Air              |
| TL | Circ. Wtr Chem Inj     |
| WB | Service water          |
| WL | Circulating Water      |
| WO | Sea Water              |
| WR | Raw Water (Grey water) |

Commodity Codes

|    |                                                         |
|----|---------------------------------------------------------|
| ME | Heat Exchange Component (Cooling Tower, Heat Exchanger) |
| MP | Pump                                                    |
| MT | Tank                                                    |
| PY | Piping Specialty                                        |

NOTES:

1. System codes are Bechtel Standard codes. Bechtel Standard codes have been assigned to existing plant equipment to aid in equipment sorts.
2. Commodity Codes shown are Bechtel standard codes. Bechtel Commodity codes have been assigned to existing plant equipment numbers to aid in equipment list sorts.
3. Valves furnished with cooling tower are included in the equipment to provide a clear understanding of the Cooling Tower Suppliers scope.

Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC Study  
Wet Natural Draft Cooling

25782-110-M0X-YA-00003, Revision 00B

| Bidder Quote to be Used | Unit | Sys Code | Com. Code <sup>1</sup> | Seq. No. | New / EXISTING | Description                                           | Type                                                                                          | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                                                                                 | Rev. |
|-------------------------|------|----------|------------------------|----------|----------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------|------------------------------|----------------------------------------------------------------------------------------------------------|------|
|                         | 1    | AC       | MU                     |          | Exist          | LP TURBINE                                            |                                                                                               |                         |                              | No modification currently required. Monitoring program should be sent up                                 | 00A  |
|                         | 2    | AC       | MU                     |          | Exist          | LP TURBINE                                            |                                                                                               |                         |                              | No modification currently required. Monitoring program should be sent up                                 | 00A  |
| Quote - Cond            | 1    | AD       | ME                     |          | EXIST          | CONDENSER                                             |                                                                                               |                         |                              | Tube side design pressure to be increased to 50 psig<br>Water boxes replaced and condenser rebundled     | 00A  |
| Quote - Cond            | 2    | AD       | ME                     |          | EXIST          | CONDENSER                                             |                                                                                               |                         |                              | Tube side design pressure to be increased to 50 psig<br>Water boxes replaced and condenser rebundled     | 00A  |
| Estimating              | 0    | PF       | PY                     |          | New            | FIRE HYDRANT                                          | Dry Barrel Type                                                                               |                         |                              | One every 300 ft, New fire piping 16,188 ft                                                              | 00A  |
| ESTIMATING              | 0    | PI       | MC                     | 001A     | New            | DESAL PLANT AIR COMPRESSOR                            | Dry, rotary screw 200 scfm 100-125 psig                                                       | 1 x 100%                | 125                          |                                                                                                          | 00A  |
| ESTIMATING              | 0    | PI       | MC                     | 001B     | New            | DESAL PLANT AIR COMPRESSOR                            | Dry, rotary screw 200 scfm 100-125 psig                                                       | 1 x 100%                | 125                          |                                                                                                          | 00A  |
| ESTIMATING              | 0    | PI       | MT                     | 001A     | New            | DESAL PLANT AIR RECEIVER                              | 5,000 gallon                                                                                  | 1 x 100%                |                              |                                                                                                          | 00A  |
| ESTIMATING              | 0    | PI       | MT                     | 001B     | New            | DESAL PLANT AIR RECEIVER                              | 5,000 gallon                                                                                  | 1 x 100%                |                              |                                                                                                          | 00A  |
| ESTIMATING              | 0    | PI       | MV                     | 001A     | New            | DESAL PLANT AIR DRYER                                 | Heatless, dessicant, dual towers with pre and after filters                                   | 1 x 100%                |                              | Matched to compressor                                                                                    | 00A  |
| ESTIMATING              | 0    | PI       | MV                     | 001B     | New            | DESAL PLANT AIR DRYER                                 | Heatless, dessicant, dual towers with pre and after filters                                   | 1 x 100%                |                              | Matched to compressor                                                                                    | 00A  |
| Estimating              |      | PW       | PY                     |          | New            | Emergency Shower and Eyewash                          |                                                                                               |                         |                              |                                                                                                          | 00A  |
| ESTIMATING              | 1    | TL       | MP                     | 001A     | New            | CIRCULATING WATER SULFURIC ACID PUMP - UNIT 1         | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| ESTIMATING              | 2    | TL       | MP                     | 001A     | New            | CIRCULATING WATER SULFURIC ACID PUMP - UNIT 2         | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| ESTIMATING              | 1    | TL       | MP                     | 001B     | New            | CIRCULATING WATER SULFURIC ACID PUMP - UNIT 1         | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| ESTIMATING              | 2    | TL       | MP                     | 001B     | New            | CIRCULATING WATER SULFURIC ACID PUMP - UNIT 2         | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| ESTIMATING              | 1    | TL       | MP                     | 002A     | New            | CIRCULATING WATER DISPERSANT PUMP - UNIT 1            | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| ESTIMATING              | 2    | TL       | MP                     | 002A     | New            | CIRCULATING WATER DISPERSANT PUMP - UNIT 2            | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| ESTIMATING              | 1    | TL       | MP                     | 002B     | New            | CIRCULATING WATER DISPERSANT PUMP - UNIT 1            | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| ESTIMATING              | 2    | TL       | MP                     | 002B     | New            | CIRCULATING WATER DISPERSANT PUMP - UNIT 2            | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| ESTIMATING              | 1    | TL       | MP                     | 003A     | New            | CIRCULATING WATER SODIUM HYPOCHLORITE PUMP - UNIT 1   |                                                                                               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| ESTIMATING              | 2    | TL       | MP                     | 003A     | New            | CIRCULATING WATER SODIUM HYPOCHLORITE PUMP - UNIT 2   |                                                                                               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| ESTIMATING              | 1    | TL       | MP                     | 003B     | New            | CIRCULATING WATER SODIUM HYPOCHLORITE PUMP - UNIT 1   |                                                                                               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| ESTIMATING              | 2    | TL       | MP                     | 003B     | New            | CIRCULATING WATER SODIUM HYPOCHLORITE PUMP - UNIT 2   |                                                                                               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| ESTIMATING              | 1    | TL       | MP                     | 004A     | New            | CIRCULATING WATER SCALE INHIBITOR PUMP - UNIT 1       | Positive displacement diaphragm metering pump                                                 | TBD                     | <1                           | Assumes common pump house for tower 001A and 001B; QTY to be determined when budgetary bids are received | 00A  |
| ESTIMATING              | 1    | TL       | MP                     | 004A     | New            | CIRCULATING WATER SCALE INHIBITOR PUMP - UNIT 1       | Positive displacement diaphragm metering pump                                                 | TBD                     | <1                           | Assumes common pump house for tower 001A and 001B; QTY to be determined when budgetary bids are received | 00A  |
| ESTIMATING              | 2    | TL       | MP                     | 004B     | New            | CIRCULATING WATER SCALE INHIBITOR PUMP - UNIT 2       | Positive displacement diaphragm metering pump                                                 | TBD                     | <1                           | Assumes common pump house for tower 001A and 001B; QTY to be determined when budgetary bids are received | 00A  |
| ESTIMATING              | 2    | TL       | MP                     | 004B     | New            | CIRCULATING WATER SCALE INHIBITOR PUMP - UNIT 2       | Positive displacement diaphragm metering pump                                                 | TBD                     | <1                           | Assumes common pump house for tower 001A and 001B; QTY to be determined when budgetary bids are received | 00A  |
| ESTIMATING              | 1    | TL       | MT                     | 001      | New            | CIRCULATING WATER SULFURIC ACID STORAGE TANK - UNIT 1 | Horizontal cylindrical with dessicant breather for vent and oil-filled loop seal for overflow | 1 x 100%                | N/A                          | Assumes common pump house for tower 001A and 001B                                                        | 00A  |

Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC Study  
Wet Natural Draft Cooling

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| Bidder Quote to be Used | Unit | Sys Code | Com. Code <sup>1</sup> | Seq. No. | New / EXISTING | Description                                                 | Type                                                                                                                                      | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                                                                                                                                                                                       | Rev. |
|-------------------------|------|----------|------------------------|----------|----------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| ESTIMATING              | 2    | TL       | MT                     | 001      | New            | CIRCULATING WATER SULFURIC ACID STORAGE TANK - UNIT 2       | Horizontal cylindrical with dessicant breather for vent and oil-filled loop seal for overflow                                             | 1 x 100%                | N/A                          | Assumes common pump house for tower 001A and 001B                                                                                                                                                              | 00A  |
| ESTIMATING              | 1    | TL       | MT                     | 002      | New            | CIRCULATING WATER DISPERSANT STORAGE TANK - UNIT 1          | 5,000 gallons, shop fabricated                                                                                                            | 1 x 100%                | N/A                          |                                                                                                                                                                                                                | 00A  |
| ESTIMATING              | 2    | TL       | MT                     | 002      | New            | CIRCULATING WATER DISPERSANT STORAGE TANK - UNIT 2          | 5,000 gallons, shop fabricated                                                                                                            | 1 x 100%                | N/A                          |                                                                                                                                                                                                                | 00A  |
| ESTIMATING              | 1    | TL       | MT                     | 003      | New            | CIRCULATING WATER SODIUM HYPOCHLORITE STORAGE TANK - UNIT 1 | 15,000 gallons, shop fabricated                                                                                                           | 1 x 100%                | N/A                          |                                                                                                                                                                                                                | 00A  |
| ESTIMATING              | 2    | TL       | MT                     | 003      | New            | CIRCULATING WATER SODIUM HYPOCHLORITE STORAGE TANK - UNIT 2 | 15,000 gallons, shop fabricated                                                                                                           | 1 x 100%                | N/A                          |                                                                                                                                                                                                                | 00A  |
| ESTIMATING              | 1    | TL       | MT                     | 004      | New            | CIRCULATING WATER SCALE INHIBITOR STORAGE TANK - UNIT 1     | 5,000 gallons, shop fabricated                                                                                                            | 1 x 100%                | N/A                          |                                                                                                                                                                                                                | 00A  |
| ESTIMATING              | 2    | TL       | MT                     | 004      | New            | CIRCULATING WATER SCALE INHIBITOR STORAGE TANK - UNIT 2     | 5,000 gallons, shop fabricated                                                                                                            | 1 x 100%                | N/A                          |                                                                                                                                                                                                                | 00A  |
| Estimating              | 1    | WB       | ME                     | 2        | NEW            | CONDENSATE COOLER                                           | Shell and tube, 9,500,000 btu/hr (assumed)<br>Hot side: Flow-1500 gpm (assumed), temp out 90F<br>Cold Side: Flow - 2150 gpm, temp out 82F |                         |                              | Replaces existing heat exchanger. Design information for original heat exchanger unavailable from site. Base on piping connection sizes it is estimate to have a duty 50% of the service water heat exchanger. | 00A  |
| Estimating              | 2    | WB       | ME                     | 2        | NEW            | CONDENSATE COOLER                                           | Shell and tube, 9,500,000 btu/hr (assumed)<br>Hot side: Flow-1500 gpm (assumed), temp out 90F<br>Cold Side: Flow - 2150 gpm, temp out 82F |                         |                              | Replaces existing heat exchanger. Design information for original heat exchanger unavailable from site. Base on piping connection sizes it is estimate to have a duty 50% of the service water heat exchanger. | 00A  |
| Quote -HX VHT           | 1    | WB       | ME                     | 001A     | NEW            | SERVICE COOLING WATER HX                                    | Shell and tube, 19,000,000 btu/hr<br>Hot Side: Flow- 3000 gpm, Temp. out- 90F<br>Cold Side: Flow - 4300 gpm, Temp. in - 82F               |                         |                              | Replaces existing heat exchanger                                                                                                                                                                               | 00A  |
| Quote -HX VHT           | 2    | WB       | ME                     | 001A     | NEW            | SERVICE COOLING WATER HX                                    | Shell and tube, 19,000,000 btu/hr<br>Hot Side: Flow- 3000 gpm, Temp. out- 90F<br>Cold Side: Flow - 4300 gpm, Temp. in - 82F               |                         |                              | Replaces existing heat exchanger                                                                                                                                                                               | 00A  |
| Quote -HX VHT           | 1    | WB       | ME                     | 001B     | NEW            | SERVICE COOLING WATER HX                                    | Shell and tube, 19,000,000 btu/hr<br>Hot Side: Flow- 3000 gpm, Temp. out- 90F<br>Cold Side: Flow - 4300 gpm, Temp. in - 82F               |                         |                              | Replaces existing heat exchanger                                                                                                                                                                               | 00A  |
| Quote -HX VHT           | 2    | WB       | ME                     | 001B     | NEW            | SERVICE COOLING WATER HX                                    | Shell and tube, 19,000,000 btu/hr<br>Hot Side: Flow- 3000 gpm, Temp. out- 90F<br>Cold Side: Flow - 4300 gpm, Temp. in - 82F               |                         |                              | Replaces existing heat exchanger                                                                                                                                                                               | 00A  |
| N/A                     | 1    | WL       | CWP                    | 1        | EXIST          | CIRCULATING WATER PUMP                                      | Concrete volute pump                                                                                                                      |                         |                              | Decommission                                                                                                                                                                                                   | 00B  |
| N/A                     | 2    | WL       | CWP                    | 1        | EXIST          | CIRCULATING WATER PUMP                                      | Concrete volute pump                                                                                                                      |                         |                              | Decommission                                                                                                                                                                                                   | 00B  |
| N/A                     | 1    | WL       | CWP                    | 2        | EXIST          | CIRCULATING WATER PUMP                                      | Concrete volute pump                                                                                                                      |                         |                              | Decommission                                                                                                                                                                                                   | 00B  |
| N/A                     | 2    | WL       | CWP                    | 2        | EXIST          | CIRCULATING WATER PUMP                                      | Concrete volute pump                                                                                                                      |                         |                              | Decommission                                                                                                                                                                                                   | 00B  |
| QUOTE - CT              | 1    | WL       | HV                     |          |                | TOWER MOV BYPASS VALVE - UNIT 1                             |                                                                                                                                           | 1 X 25%                 | 4 hp                         | Provided by tower vendor.                                                                                                                                                                                      | 00A  |
| QUOTE - CT              | 1    | WL       | HV                     |          |                | TOWER MOV BYPASS VALVE - UNIT 1                             |                                                                                                                                           | 1 X 25%                 | 4 hp                         | Provided by tower vendor.                                                                                                                                                                                      | 00A  |
| QUOTE - CT              | 1    | WL       | HV                     |          |                | TOWER MOV BYPASS VALVE - UNIT 1                             |                                                                                                                                           | 1 X 25%                 | 4 hp                         | Provided by tower vendor.                                                                                                                                                                                      | 00A  |
| QUOTE - CT              | 1    | WL       | HV                     |          |                | TOWER MOV BYPASS VALVE - UNIT 1                             |                                                                                                                                           | 1 X 25%                 | 4 hp                         | Provided by tower vendor.                                                                                                                                                                                      | 00A  |
| QUOTE - CT              | 2    | WL       | HV                     |          |                | TOWER MOV BYPASS VALVE - UNIT 2                             |                                                                                                                                           | 1 X 25%                 | 4 hp                         | Provided by tower vendor.                                                                                                                                                                                      | 00A  |
| QUOTE - CT              | 2    | WL       | HV                     |          |                | TOWER MOV BYPASS VALVE - UNIT 2                             |                                                                                                                                           | 1 X 25%                 | 4 hp                         | Provided by tower vendor.                                                                                                                                                                                      | 00A  |
| QUOTE - CT              | 2    | WL       | HV                     |          |                | TOWER MOV BYPASS VALVE - UNIT 2                             |                                                                                                                                           | 1 X 25%                 | 4 hp                         | Provided by tower vendor.                                                                                                                                                                                      | 00A  |
| QUOTE - CT              | 2    | WL       | HV                     |          |                | TOWER MOV BYPASS VALVE - UNIT 2                             |                                                                                                                                           | 1 X 25%                 | 4 hp                         | Provided by tower vendor.                                                                                                                                                                                      | 00A  |
| QUOTE -CT               | 1    | WL       | ME                     | 001A     | New            | NATURAL DRAFT COOLING TOWER - Unit 1                        |                                                                                                                                           | 1 X 50%                 |                              |                                                                                                                                                                                                                | 00A  |
| QUOTE -CT               | 2    | WL       | ME                     | 001A     | New            | NATURAL DRAFT COOLING TOWER - Unit 2                        |                                                                                                                                           | 1 X 50%                 |                              |                                                                                                                                                                                                                | 00A  |
| QUOTE -CT               | 1    | WL       | ME                     | 001B     | New            | NATURAL DRAFT COOLING TOWER - Unit 1                        |                                                                                                                                           | 1 X 50%                 |                              |                                                                                                                                                                                                                | 00A  |

Preliminary Mechanical Equipment List

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| Bidder Quote to be Used | Unit | Sys Code | Com. Code <sup>1</sup> | Seq. No. | New / EXISTING | Description                            | Type                                      | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                                  | Rev. |
|-------------------------|------|----------|------------------------|----------|----------------|----------------------------------------|-------------------------------------------|-------------------------|------------------------------|-----------------------------------------------------------|------|
| QUOTE -CT               | 2    | WL       | ME                     | 001B     | New            | NATURAL DRAFT COOLING TOWER - Unit 2   |                                           | 1 X 50%                 |                              |                                                           | 00A  |
| QUOTE - PUMPS Xylem     | 1    | WL       | MP                     | 001A     | New            | CIRCULATING WATER PUMP - Unit 1        | Fabricated Volute, 218250 gpm, 110 ft TDH | 1 X 25%                 | 7250                         | Pump to be located in new Unit 1 pump house               | 00A  |
| QUOTE - PUMPS Xylem     | 2    | WL       | MP                     | 001A     | New            | CIRCULATING WATER PUMP - Unit 2        | Fabricated Volute, 218250 gpm, 110 ft TDH | 1X 25%                  | 7250                         | Pump to be located in new Unit 2 pump house               | 00A  |
| QUOTE - PUMPS Xylem     | 2    | WL       | MP                     | 001A     | New            | CIRCULATING WATER PUMP - Unit 2        | Fabricated Volute, 218250 gpm, 110 ft TDH | 1X 25%                  | 7250                         | Pump to be located in new Unit 2 pump house               | 00A  |
| QUOTE - PUMPS Xylem     | 1    | WL       | MP                     | 001B     | New            | CIRCULATING WATER PUMP - Unit 1        | Fabricated Volute, 218250 gpm, 110 ft TDH | 1X 25%                  | 7250                         | Pump to be located in new Unit 1 pump house               | 00A  |
| QUOTE - PUMPS Xylem     | 2    | WL       | MP                     | 001B     | New            | CIRCULATING WATER PUMP - Unit 2        | Fabricated Volute, 218250 gpm, 110 ft TDH | 1X 25%                  | 7250                         | Pump to be located in new Unit 2 pump house               | 00A  |
| QUOTE - PUMPS Xylem     | 2    | WL       | MP                     | 001B     | New            | CIRCULATING WATER PUMP - Unit 2        | Fabricated Volute, 218250 gpm, 110 ft TDH | 1X 25%                  | 7250                         | Pump to be located in new Unit 2 pump house               | 00A  |
| QUOTE - PUMPS Xylem     | 1    | WL       | MP                     | 001C     | New            | CIRCULATING WATER PUMP - Unit 1        | Fabricated Volute, 218250 gpm, 110 ft TDH | 1X 25%                  | 7250                         | Pump to be located in new Unit 1 pump house               | 00A  |
| QUOTE - PUMPS Xylem     | 1    | WL       | MP                     | 001D     | New            | CIRCULATING WATER PUMP - Unit 1        | Fabricated Volute, 218250 gpm, 110 ft TDH | 1X 25%                  | 7250                         | Pump to be located in new Unit 1 pump house               | 00A  |
| ESTIMATING              | 0    | WL       | MT                     | 001      | New            | COOLING TOWER MAKEUP STORAGE POND      | Pond, 5,000,000 gallon useable            | 1 x 100%                |                              | ≈2.5 hours (evaporation, drift & blowdown of 33,100 gpm). | 00A  |
| QUOTE - CT              | 1    | WL       | PV                     |          |                | TOWER SECTION ISOLATION VALVE - UNIT 1 | Gate or Butterfly                         | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                                 | 00A  |
| N/A                     | 1    | WL       | SCW HX                 | 1        | EXIST          | SERVICE COOLING WATER HX               | Shell and tube                            |                         |                              | Remove and replace with new HX 1-WB-ME-001A               | 00B  |
| N/A                     | 2    | WL       | SCW HX                 | 1        | EXIST          | SERVICE COOLING WATER HX               | Shell and tube                            |                         |                              | Remove and replace with new HX 2-WB-ME-001A               | 00B  |
| N/A                     | 1    | WL       | SCW HX                 | 2        | EXIST          | SERVICE COOLING WATER HX               | Shell and tube                            |                         |                              | Remove and replace with new HX 1-WB-ME-001B               | 00B  |
| N/A                     | 2    | WL       | SCW HX                 | 2        | EXIST          | SERVICE COOLING WATER HX               | Shell and tube                            |                         |                              | Remove and replace with new HX 2-WB-ME-001B               | 00B  |
| N/A                     | 1    | WL       |                        | 1        | EXIST          | CONDENSATE COOLER                      | Shell and tube                            |                         |                              | Remove and replace with new HX 2-WB-ME-002                | 00B  |
| N/A                     | 2    | WL       |                        | 1        | EXIST          | CONDENSATE COOLER                      | Shell and tube                            |                         |                              | Remove and replace with new HX 2-WB-ME-002                | 00B  |
| QUOTE - CT              | 1    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 1 | Gate or Butterfly                         | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                                 | 00A  |
| QUOTE - CT              | 1    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 1 | Gate or Butterfly                         | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                                 | 00A  |
| QUOTE - CT              | 1    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 1 | Gate or Butterfly                         | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                                 | 00A  |
| QUOTE - CT              | 1    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 1 | Gate or Butterfly                         | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                                 | 00A  |
| QUOTE - CT              | 1    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 1 | Gate or Butterfly                         | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                                 | 00A  |
| QUOTE - CT              | 1    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 1 | Gate or Butterfly                         | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                                 | 00A  |
| QUOTE - CT              | 1    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 1 | Gate or Butterfly                         | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                                 | 00A  |
| QUOTE - CT              | 1    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 1 | Gate or Butterfly                         | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                                 | 00A  |
| QUOTE - CT              | 1    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 1 | Gate or Butterfly                         | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                                 | 00A  |
| QUOTE - CT              | 1    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 1 | Gate or Butterfly                         | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                                 | 00A  |



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| Bidder Quote to be Used           | Unit | Sys Code | Com. Code <sup>1</sup> | Seq. No. | New / EXISTING | Description                            | Type                                                                 | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                          | Rev. |
|-----------------------------------|------|----------|------------------------|----------|----------------|----------------------------------------|----------------------------------------------------------------------|-------------------------|------------------------------|---------------------------------------------------|------|
| QUOTE - CT                        | 1    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 1 | Gate or Butterfly                                                    | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                         | 00A  |
| QUOTE - CT                        | 2    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 2 | Gate or Butterfly                                                    | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                         | 00A  |
| QUOTE - CT                        | 2    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 2 | Gate or Butterfly                                                    | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                         | 00A  |
| QUOTE - CT                        | 2    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 2 | Gate or Butterfly                                                    | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                         | 00A  |
| QUOTE - CT                        | 2    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 2 | Gate or Butterfly                                                    | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                         | 00A  |
| QUOTE - CT                        | 2    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 2 | Gate or Butterfly                                                    | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                         | 00A  |
| QUOTE - CT                        | 2    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 2 | Gate or Butterfly                                                    | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                         | 00A  |
| QUOTE - CT                        | 2    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 2 | Gate or Butterfly                                                    | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                         | 00A  |
| QUOTE - CT                        | 2    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 2 | Gate or Butterfly                                                    | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                         | 00A  |
| QUOTE - CT                        | 2    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 2 | Gate or Butterfly                                                    | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                         | 00A  |
| QUOTE - CT                        | 2    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 2 | Gate or Butterfly                                                    | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                         | 00A  |
| QUOTE - CT                        | 2    | WL       |                        |          |                | TOWER SECTION ISOLATION VALVE - UNIT 2 | Gate or Butterfly                                                    | 1 x 8%                  | 1 hp                         | Provided by tower vendor.                         | 00A  |
| Anderson                          | 0    | WO       | MA                     |          |                | MMF AIR SCOUR BLOWER                   |                                                                      | -                       | -                            | Not required                                      | 00A  |
| Anderson                          | 0    | WO       | ME                     |          | New            | CIP TANK HEATER                        | 50 KW heater, 10 KW pump                                             |                         | 10 KW                        | Add 50 KW to operating power for the 50 KW heater | 00A  |
| Anderson                          | 0    | WO       | ML                     |          | New            | DISSOLVED AIR FLOATION                 | TBD Gallons, TBD L x W x H                                           | 9 x 12.5%               | -                            |                                                   | 00A  |
| Anderson                          | 0    | WO       | ML                     |          | New            | FIRST STAGE DUAL MEDIA FILTERS         | 2,630 gpm throughput                                                 | 30 x 3.6%               | -                            |                                                   | 00A  |
| Anderson                          | 0    | WO       | ML                     |          | New            | SECOND STAGE DUAL MEDIA FILTERS        | 3,540 gpm throughput                                                 | 22 x 5%                 | -                            |                                                   | 00A  |
| Anderson                          | 0    | WO       | ML                     |          | New            | SWRO CARTRIDGE FILTER                  | 4,370 gpm throughput each                                            | 18 x 5.9%               | -                            |                                                   | 00A  |
| Anderson                          | 0    | WO       | ML                     |          | New            | CIP CARTRIDGE FILTER                   | 1,000 gpm throughput                                                 | 1 x 100%                | -                            |                                                   | 00A  |
| Quote - Pump ITT-Goulds/Flowserve | 0    | WO       | MP                     | 001A     | New            | DESAL SEA WATER SUPPLY PUMP            | Vertical Turbine, 36800 gpm, TDH: 570 feet with variable speed drive | 1 x 50%                 | 6800                         |                                                   | 00A  |
| Quote - Pump ITT-Goulds/Flowserve | 0    | WO       | MP                     | 001B     | New            | DESAL SEA WATER SUPPLY PUMP            | Vertical Turbine, 36800 gpm, TDH: 570 feet with variable speed drive | 1 x 50%                 | 6800                         |                                                   | 00A  |
| Quote - Pump ITT-Goulds/Flowserve | 0    | WO       | MP                     | 001C     | New            | DESAL SEA WATER SUPPLY PUMP            | Vertical Turbine, 36800 gpm, TDH: 570 feet with variable speed drive | 1 x 50%                 | 6800                         |                                                   | 00A  |
| ESTIMATING                        | 0    | WO       | MP                     | 002A     | New            | SWRO MMF BACKWASH RETURN PUMP          | Vertical Turbine, 2000 gpm, TDH 100 feet                             | 1 x 100%                | 75                           |                                                   | 00A  |
| ESTIMATING                        | 0    | WO       | MP                     | 002B     | New            | SWRO MMF BACKWASH RETURN PUMP          | Vertical Turbine, 2000 gpm, TDH 100 feet                             | 1 x 100%                | 75                           |                                                   | 00A  |
| Anderson                          | 0    | WO       | MP                     |          | New            | DAF FORWARDING PUMP                    | 9,780 gpm, 100 ft                                                    | 10 x 11.1%              | 350                          |                                                   | 00A  |
| Anderson                          | 0    | WO       | MP                     |          | New            | SWRO BOOSTER PUMP                      | 4,240 gpm, 2,000 ft TDH                                              | 9 x 12.5%               | 3000                         |                                                   | 00A  |
| Anderson                          | 0    | WO       | MP                     |          | New            | SWRO ENERGY RECOVERY DEVICE            | 5,110 gpm                                                            | 9 x 12.5%               | -                            |                                                   | 00A  |
| Anderson                          | 0    | WO       | MP                     |          | New            | SWRO ERD BOOSTER PUMP                  | 5,110 gpm, 200 ft TDH                                                | 9 x 12.5%               | 400                          |                                                   | 00A  |
| Anderson                          | 0    | WO       | MP                     |          | New            | CIP RECIRCULATION PUMP                 | 1200 gpm, 250 ft TDH                                                 | 2 x 100%                | 100                          |                                                   | 00A  |
| Anderson                          | 0    | WO       | MP                     |          | New            | SODIUM HYPOCHLORITE DOSING PUMP        | 25 gph                                                               | 2 x 100%                | 1                            |                                                   | 00A  |

Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC Study  
Wet Natural Draft Cooling

25762-110-M0X-YA-00003, Revision 00B

| Bidder Quote to be Used | Unit | Sys Code | Com. Code 1 | Seq. No. | New / EXISTING | Description                                            | Type                                                                                                                                                                                          | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                                 | Rev. |
|-------------------------|------|----------|-------------|----------|----------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------|----------------------------------------------------------|------|
| Anderson                | 0    | WO       | MP          |          | New            | DAF COAGULANT DOSING PUMP                              | TBD gph                                                                                                                                                                                       | 2 x 100%                | 1                            |                                                          | 00A  |
| Anderson                | 0    | WO       | MP          |          | New            | MMF COAGULANT DOSING PUMP                              | TBD gph                                                                                                                                                                                       | 2 x 100%                | 1                            |                                                          | 00A  |
| Anderson                | 0    | WO       | MP          |          | New            | ACID DOSING PUMP                                       | 25 gph                                                                                                                                                                                        | 2 x 100%                | 1                            |                                                          | 00A  |
| Anderson                | 0    | WO       | MP          |          | New            | ANTISCALANT DOSING PUMP                                | TBD gph                                                                                                                                                                                       | 2 x 100%                | 1                            |                                                          | 00A  |
| Anderson                | 0    | WO       | MP          |          | New            | DECHLORINATION DOSING PUMP                             | TBD gph                                                                                                                                                                                       | 2 x 100%                | 1                            |                                                          | 00A  |
| Anderson                | 0    | WO       | MT          |          | New            | AIR SATURATION TANK                                    | TBD Gallons                                                                                                                                                                                   | 9 x 12.5%               | -                            |                                                          | 00A  |
| Anderson                | 0    | WO       | MT          |          | New            | CIP SOLUTION TANK                                      | 6,000 gallons                                                                                                                                                                                 | 1 x 100%                | -                            |                                                          | 00A  |
| Anderson                | 0    | WO       | MT          |          | New            | SODIUM HYPOCHLORITE STORAGE TANK                       | 21,000 gallons                                                                                                                                                                                | 1 x 100%                | -                            |                                                          | 00A  |
| Anderson                | 0    | WO       | MT          |          | New            | DAF COAGULANT STORAGE TANK                             | 21,000 gallons                                                                                                                                                                                | 1 x 100%                | -                            |                                                          | 00A  |
| Anderson                | 0    | WO       | MT          |          | New            | MMF COAGULANT STORAGE TANK                             | 21,000 gallons                                                                                                                                                                                | 1 x 100%                | -                            |                                                          | 00A  |
| Anderson                | 0    | WO       | MT          |          | New            | ACID STORAGE TANK                                      | 21,000 gallons                                                                                                                                                                                | 1 x 100%                | -                            |                                                          | 00A  |
| Anderson                | 0    | WO       | MT          |          | New            | ANTISCALANT STORAGE TANK                               | 21,000 gallons                                                                                                                                                                                | 1 x 100%                | -                            |                                                          | 00A  |
| Anderson                | 0    | WO       | MT          |          | New            | DECHLORINATION STORAGE TANK                            | 21,000 gallons                                                                                                                                                                                | 1 x 100%                | -                            |                                                          | 00A  |
| <b>QUOTE - DESAL</b>    | 0    | WO       | MW          | 001      | New            | <b>DESALINATION PLANT</b>                              | Multiple Train System consisting of multimedia filters (MMF), seawater reverse osmosis (SWRO) trains, clean-in-place (CIP) systems and chemical dosing systems, product flowrate - 33100 gpm. | 100%                    |                              | Estimated Plant area: 422,000 sq feet                    | 00A  |
| Anderson                | 0    | WO       | MW          |          | New            | SWRO MEMBRANE UNIT                                     | 3,670 gpm throughput                                                                                                                                                                          | 9 x 12.5%               | -                            |                                                          | 00A  |
| IDI                     | 0    | WR       | MC          |          | New            | FILTER "A" VACUUM PUMP                                 | TBD                                                                                                                                                                                           | 2 x 100%                | 5.5                          |                                                          | 00A  |
| IDI                     | 0    | WR       | ML          |          | New            | FILTER (GREENLEAF FILTER)                              | 2,800 gpm                                                                                                                                                                                     | 1 x 100%                |                              |                                                          | 00A  |
| IDI                     | 0    | WR       | ML          |          | New            | FILTER PRESS                                           | 20 Cft                                                                                                                                                                                        | 2 x 100%                | 5.0                          |                                                          | 00A  |
| Estimating              | 0    | WR       | MP          | 001A     | New            | CLARIFIER FORWARDING PUMP                              | Horizontal centrifugal, 3000 gpm, 100 feet TDH                                                                                                                                                | 1 x 100%                | 125                          |                                                          | 00A  |
| Estimating              | 0    | WR       | MP          | 001B     | New            | CLARIFIER FORWARDING PUMP                              | Horizontal centrifugal, 3000 gpm, 100 feet TDH                                                                                                                                                | 1 x 100%                | 125                          |                                                          | 00A  |
| Estimating              | 0    | WR       | MP          | 002A     | New            | CLARIFIER FEED PUMP                                    | Horizontal centrifugal, 3000 gpm, 100 feet TDH                                                                                                                                                | 1 x 100%                | 125                          |                                                          | 00A  |
| Estimating              | 0    | WR       | MP          | 002B     | New            | CLARIFIER FEED PUMP                                    | Horizontal centrifugal, 3000 gpm, 100 feet TDH                                                                                                                                                | 1 x 100%                | 125                          |                                                          | 00A  |
| Estimating              | 0    | WR       | MP          | 003A     | New            | CLARIFIER MMF BACKWASH PUMP                            | Vertical sump pump, 1000 gpm, 100 feet TDH                                                                                                                                                    | 1 x 100%                | 40                           |                                                          | 00A  |
| Estimating              | 0    | WR       | MP          | 003B     | New            | CLARIFIER MMF BACKWASH PUMP                            | Vertical sump pump, 1000 gpm, 100 feet TDH                                                                                                                                                    | 1 x 100%                | 40                           |                                                          | 00A  |
| Estimating              | 0    | WR       | MP          | 004B     | New            | MORO BAY RECYCLE WATER SUPPLY PUMP                     | Vertical Turbine, 800 gpm, 500 feet TDH, 15 feet baseplate to suction bell inlet                                                                                                              | 1 x 100%                | 150                          | Pump station is located approximately 20 miles off site. | 00B  |
| Estimating              | 0    | WR       | MP          | 005A     | New            | SAN LUIS OBISPO RECYCLE WATER SUPPLY PUMP              | Vertical Turbine, 2000 gpm, 580 feet TDH, 15 feet baseplate to suction bell inlet                                                                                                             | 1 x 100%                | 400                          | Pump station is located approximately 20 miles off site. | 00B  |
| Estimating              | 0    | WR       | MP          | 005B     | New            | SAN LUIS OBISPO RECYCLE WATER SUPPLY PUMP              | Vertical Turbine, 2000 gpm, 580 feet TDH, 15 feet baseplate to suction bell inlet                                                                                                             | 1 x 100%                | 400                          | Pump station is located approximately 20 miles off site. | 00B  |
| IDI                     | 0    | WR       | MP          |          | New            | CLARIFIER "A" SLUDGE RECIRCULATION / BLOWDOWN PUMP SET | 140 gpm, 46 ft TDH with VFD                                                                                                                                                                   | 3 x 50%                 | 7.5                          |                                                          | 00A  |
| IDI                     | 0    | WR       | MP          |          | New            | FILTER PRESS FEED PUMP                                 | 30 gpm, 100 psig                                                                                                                                                                              | 3 x 50%                 | N/A                          | Air operated diaphragm                                   | 00A  |
| IDI                     | 0    | WR       | MP          |          | New            | FILTRATE SUMP TRANSFER PUMP                            | 100 gpm, 46 ft TDH                                                                                                                                                                            | 2 x 100%                | 2.0                          |                                                          | 00A  |
| IDI                     | 0    | WR       | MP          |          | New            | SODIUM HYPOCHLORITE DOSING PUMPS                       | 10 gph                                                                                                                                                                                        | 4 x 25%                 | 0.3                          |                                                          | 00A  |
| IDI                     | 0    | WR       | MP          |          | New            | FERRIC CHLORIDE DOSING PUMP                            | 20 gph                                                                                                                                                                                        | 4 x 25%                 | 0.5                          |                                                          | 00A  |
| IDI                     | 0    | WR       | MP          |          | New            | POLYELECTROLYTE DOSING PUMP                            | 2 gph                                                                                                                                                                                         | 3 x 50%                 | 0.25                         |                                                          | 00A  |
| Estimating              | 0    | WR       | MP          | 004A     | New            | MORO BAY RECYCLE WATER SUPPLY PUMP                     | Vertical Turbine, 800 gpm, 500 feet TDH, 15 feet baseplate to suction bell inlet                                                                                                              | 1 x 100%                | 150                          | Pump station is located approximately 20 miles off site. | 00A  |
| ESTIMATING              | 0    | WR       | MT          | 001      | New            | RECYCLE WATER STORAGE TANK                             | Field Fabricated Epoxy Coated Carbon Steel, 100,000 gallon                                                                                                                                    | 1 x 100%                |                              | Sized for 30 min storage, 40 ft Diameter and 40 ft High  | 00B  |
| IDI                     | 0    | WR       | MT          |          | New            | MIX TANK (RAPID)                                       | 9,300 gallons, 9'D x 20.25'H                                                                                                                                                                  | 1 x 100.3%              |                              |                                                          | 00A  |
| IDI                     | 0    | WR       | MT          |          | New            | REACTION TANK (DENSEDEG REACTOR)                       | 37,000 gallons 19'D x 18.5'H                                                                                                                                                                  | 1 x 100.3%              | -                            |                                                          | 00A  |
| IDI                     | 0    | WR       | MT          |          | New            | FILTER BACKWASH SUPPLY TANK                            | 21,000 gallons                                                                                                                                                                                | 1 x 100%                | -                            |                                                          | 00A  |
| IDI                     | 0    | WR       | MT          |          | New            | SLUDGE STORAGE TANK                                    | 6,000 gallons, 10'D x 12'H                                                                                                                                                                    | 1 x 100%                | -                            |                                                          | 00A  |
| IDI                     | 0    | WR       | MT          |          | New            | SLUDGE STORAGE TANK MIXER                              | With VFD                                                                                                                                                                                      | 1 x 100%                | 5.0                          |                                                          | 00A  |
| IDI                     | 0    | WR       | MT          |          | New            | SODIUM HYPOCHLORITE BULK STORAGE TANK                  | 5000 gallons                                                                                                                                                                                  | 1 x 100%                | -                            |                                                          | 00A  |
| IDI                     | 0    | WR       | MT          |          | New            | FERRIC CHLORIDE STORAGE TANK                           | 5,000 gallons                                                                                                                                                                                 | 1 x 100%                | -                            |                                                          | 00A  |

Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC Study  
Wet Natural Draft Cooling

25762-110-M0X-YA-00003, Revision 00B

| Bidder Quote to be Used | Unit | Sys Code | Com. Code <sup>1</sup> | Seq. No. | New / EXISTING | Description                                | Type                                                                                                                        | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments | Rev. |
|-------------------------|------|----------|------------------------|----------|----------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------|----------|------|
| IDI                     | 0    | WR       |                        |          | New            | MIX TANK MIXER                             | With VFD                                                                                                                    | 1 x 100%                | 5.0                          |          | 00A  |
| IDI                     | 0    | WR       |                        |          | New            | REACTION TANK MIXER                        | With VFD                                                                                                                    | 3 x 33.3%               | 7.5                          |          | 00A  |
| IDI                     | 0    | WR       |                        |          | New            | CLARIFIER (DENSADEG CLARIFIER / THICKENER) | 2,800 gpm 26'D x 18.5'H                                                                                                     | 1 x 100%                | -                            |          | 00A  |
| IDI                     | 0    | WR       |                        |          | New            | CLARIFIER SLUDGE SCRAPER                   | Two arms                                                                                                                    | 1 x 100%                | 0.5                          |          | 00A  |
| Estimating              |      | XN       |                        |          |                | DESAL AREA SANITARY LIFT STATION           | 48" diameter concrete sump, vented cover, duplex submersible pumps (50 gpm, TH: 100 ft), control panel, external valve box, |                         |                              |          | 00A  |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |
|                         |      |          |                        |          |                |                                            |                                                                                                                             |                         |                              |          |      |

# JUOTC - DIABLO CANYON

## Preliminary Mechanical Equipment List Wet Mechanical Draft Cooling

25762-110-M0X-YA-00004

| Rev | Date      | Reason for Revision        | Originator | Checked | Approved |
|-----|-----------|----------------------------|------------|---------|----------|
| 00B | 7/27/2013 | Issued for Estimate Report | RP         | -       | RP       |
| 00A | 7/10/2013 | Issued for Esitmate        | RP         | -       | RP       |

JUOTC - DIABLO CANYON  
Preliminary Mechanical Equipment List

25762-110-MOX-YA-00004, Rev. 00B

System Codes

Commodity Codes

|    |                       |    |                                                         |
|----|-----------------------|----|---------------------------------------------------------|
| AC | Steam Turbine         | MC | Compressors/vacuum Pump                                 |
| AD | Condensate            | ME | Heat Exchange Component (Cooling Tower, Heat Exchanger) |
| PF | Fire Protection       | ML | Liquid -Solid Separation (Clarifer, Automatic filters)  |
| PI | Plant Air             | MP | Pump                                                    |
| PW | Potable Water         | MT | Tank                                                    |
| TL | Circ Water Chem, Inj, | MU | Driver                                                  |
| WB | Turbine Bldg Cooling  | MW | Liquid Separation & Purification (Desal)                |
| WL | Circulating Water     | PV | Manual Valve                                            |
| WO | Sea Wate/Desal        |    |                                                         |
| WR | Grey Water            |    |                                                         |

NOTES:

1. Commodity Codes shown are Bechtel standard codes. Bechtel Commodity codes have been assigned to existing plant equipment numbers to aid in equipment list sorts.

Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC StudyWet Mechanical (Forced Draft) Cooling

25762-110-M0X-YA-00004, Revision 00B

| Unit | Sys Code | Com. Code | Seq. No. | Exist | Description                                         | Type                                                        | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                                                                                 | Rev. |
|------|----------|-----------|----------|-------|-----------------------------------------------------|-------------------------------------------------------------|-------------------------|------------------------------|----------------------------------------------------------------------------------------------------------|------|
| 1    | AC       | MU        |          | Exist | LP TURBINE                                          |                                                             |                         |                              | No modification currently required. Monitoring program should be sent up                                 | 00A  |
| 2    | AC       | MU        |          | Exist | LP TURBINE                                          |                                                             |                         |                              | No modification currently required. Monitoring program should be sent up                                 | 00A  |
| 1    | AD       | ME        |          | EXIST | CONDENSER                                           |                                                             |                         |                              | Tube side desgin pressure to be increased to 50 psig<br>Water boxes replaced and condenser rebundled     | 00A  |
| 2    | AD       | ME        |          | EXIST | CONDENSER                                           |                                                             |                         |                              | Tube side desgin pressure to be increased to 50 psig<br>Water boxes replaced and condenser rebundled     | 00A  |
| 0    | PF       | PY        |          | New   | FIRE HYDRANT                                        | Dry Barrel Type                                             |                         |                              | One every 300 ft, New fire piping 16,188 ft                                                              | 00A  |
| 0    | PI       | MC        | 001A     | New   | DESAL PLANT AIR COMPRESSOR                          | Dry, rotary screw 200 scfm 100-125 psig                     | 1 x 100%                | 125                          |                                                                                                          | 00A  |
| 0    | PI       | MC        | 001B     | New   | DESAL PLANT AIR COMPRESSOR                          | Dry, rotary screw 200 scfm 100-125 psig                     | 1 x 100%                | 125                          |                                                                                                          | 00A  |
| 0    | PI       | MT        | 001A     | New   | DESAL PLANT AIR RECEIVER                            | 5,000 gallon                                                | 1 x 100%                |                              |                                                                                                          | 00A  |
| 0    | PI       | MT        | 001B     | New   | DESAL PLANT AIR RECEIVER                            | 5,000 gallon                                                | 1 x 100%                |                              |                                                                                                          | 00A  |
| 0    | PI       | MV        | 001A     | New   | DESAL PLANT AIR DRYER                               | Heatless, dessicant, dual towers with pre and after filters | 1 x 100%                |                              | Matched to compressor                                                                                    | 00A  |
| 0    | PI       | MV        | 001B     | New   | DESAL PLANT AIR DRYER                               | Heatless, dessicant, dual towers with pre and after filters | 1 x 100%                |                              | Matched to compressor                                                                                    | 00A  |
|      | PW       | PY        |          | New   | Emergency Shower and Eyewash                        |                                                             |                         |                              |                                                                                                          | 00A  |
| 1    | TL       | MP        | 001A     | New   | CIRCULATING WATER SULFURIC ACID PUMP - UNIT 1       | Positive displacement diaphragm metering pump               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| 2    | TL       | MP        | 001A     | New   | CIRCULATING WATER SULFURIC ACID PUMP - UNIT 2       | Positive displacement diaphragm metering pump               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| 1    | TL       | MP        | 001B     | New   | CIRCULATING WATER SULFURIC ACID PUMP - UNIT 1       | Positive displacement diaphragm metering pump               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| 2    | TL       | MP        | 001B     | New   | CIRCULATING WATER SULFURIC ACID PUMP - UNIT 2       | Positive displacement diaphragm metering pump               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| 1    | TL       | MP        | 002A     | New   | CIRCULATING WATER DISPERSANT PUMP - UNIT 1          | Positive displacement diaphragm metering pump               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| 2    | TL       | MP        | 002A     | New   | CIRCULATING WATER DISPERSANT PUMP - UNIT 2          | Positive displacement diaphragm metering pump               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| 1    | TL       | MP        | 002B     | New   | CIRCULATING WATER DISPERSANT PUMP - UNIT 1          | Positive displacement diaphragm metering pump               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| 2    | TL       | MP        | 002B     | New   | CIRCULATING WATER DISPERSANT PUMP - UNIT 2          | Positive displacement diaphragm metering pump               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| 1    | TL       | MP        | 003A     | New   | CIRCULATING WATER SODIUM HYPOCHLORITE PUMP - UNIT 1 | Positive displacement diaphragm metering pump               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| 2    | TL       | MP        | 003A     | New   | CIRCULATING WATER SODIUM HYPOCHLORITE PUMP - UNIT 2 | Positive displacement diaphragm metering pump               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| 1    | TL       | MP        | 003B     | New   | CIRCULATING WATER SODIUM HYPOCHLORITE PUMP - UNIT 1 | Positive displacement diaphragm metering pump               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| 2    | TL       | MP        | 003B     | New   | CIRCULATING WATER SODIUM HYPOCHLORITE PUMP - UNIT 2 | Positive displacement diaphragm metering pump               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| 1    | TL       | MP        | 004A     | New   | CIRCULATING WATER SCALE INHIBITOR PUMP - UNIT 1     | Positive displacement diaphragm metering pump               | TBD                     | <1                           | Assumes common pump house for tower 001A and 001B; QTY to be determined when budgetary bids are received | 00A  |
| 1    | TL       | MP        | 004A     | New   | CIRCULATING WATER SCALE INHIBITOR PUMP - UNIT 1     | Positive displacement diaphragm metering pump               | TBD                     | <1                           | Assumes common pump house for tower 001A and 001B; QTY to be determined when budgetary bids are received | 00A  |

Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC StudyWet Mechanical (Forced Draft) Cooling

25762-110-M0X-YA-00004, Revision 00B

| Unit | Sys Code | Com. Code | Seq. No. |       | Description                                             | Type                                                                                                                                      | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                                                                                                                                                                                       | Rev. |
|------|----------|-----------|----------|-------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 2    | TL       | MP        | 004B     | New   | CIRCULATING WATER SCALE INHIBITOR PUMP - UNIT 2         | Positive displacement diaphragm metering pump                                                                                             | TBD                     | <1                           | Assumes common pump house for tower 001A and 001B; QTY to be determined when budgetary bids are received                                                                                                       | 00A  |
| 2    | TL       | MP        | 004B     | New   | CIRCULATING WATER SCALE INHIBITOR PUMP - UNIT 2         | Positive displacement diaphragm metering pump                                                                                             | TBD                     | <1                           | Assumes common pump house for tower 001A and 001B; QTY to be determined when budgetary bids are received                                                                                                       | 00A  |
| 1    | TL       | MT        | 001      | New   | CIRCULATING WATER SULFURIC ACID STORAGE TANK - UNIT 1   | Horizontal cylindrical with dessicant breather for vent and oil-filled loop seal for overflow                                             | 1 x 100%                | N/A                          | Assumes common pump house for tower 001A and 001B                                                                                                                                                              | 00A  |
| 2    | TL       | MT        | 001      | New   | CIRCULATING WATER SULFURIC ACID STORAGE TANK - UNIT 2   | Horizontal cylindrical with dessicant breather for vent and oil-filled loop seal for overflow                                             | 1 x 100%                | N/A                          | Assumes common pump house for tower 001A and 001B                                                                                                                                                              | 00A  |
| 1    | TL       | MT        | 004      | New   | CIRCULATING WATER SCALE INHIBITOR STORAGE TANK - UNIT 1 | 5,000 gallons, shop fabricated                                                                                                            | 1 x 100%                | N/A                          |                                                                                                                                                                                                                | 00A  |
| 2    | TL       | MT        | 004      | New   | CIRCULATING WATER SCALE INHIBITOR STORAGE TANK - UNIT 2 | 5,000 gallons, shop fabricated                                                                                                            | 1 x 100%                | N/A                          |                                                                                                                                                                                                                | 00A  |
| 1    | WB       | ME        | 002      | NEW   | CONDENSATE COOLER                                       | Shell and tube, 9,500,000 btu/hr (assumed)<br>Hot side: Flow-1500 gpm (assumed), temp out 90F<br>Cold Side: Flow - 2150 gpm, temp out 82F |                         |                              | Replaces existing heat exchanger. Design information for original heat exchanger unavailable from site. Base on piping connection sizes it is estimate to have a duty 50% of the service water heat exchanger. | 00A  |
| 2    | WB       | ME        | 002      | NEW   | CONDENSATE COOLER                                       | Shell and tube, 9,500,000 btu/hr (assumed)<br>Hot side: Flow-1500 gpm (assumed), temp out 90F<br>Cold Side: Flow - 2150 gpm, temp out 82F |                         |                              | Replaces existing heat exchanger. Design information for original heat exchanger unavailable from site. Base on piping connection sizes it is estimate to have a duty 50% of the service water heat exchanger. | 00A  |
| 1    | WB       | ME        | 001A     | New   | Service Cooling Exchanger - UNIT 1                      | Duty: 19,000,000 btu/hr<br>Hot Side: Out: 90F, Flow 3000 gpm<br>Cold Side In: 78F, flow 4300                                              | 100%                    |                              |                                                                                                                                                                                                                | 00A  |
| 2    | WB       | ME        | 001A     | New   | Service Cooling Exchanger - UNIT 2                      | Duty: 19,000,000 btu/hr<br>Hot Side: Out: 90F, Flow 3000 gpm<br>Cold Side In: 78F, flow 4300                                              | 100%                    |                              |                                                                                                                                                                                                                | 00A  |
| 1    | WB       | ME        | 001B     | New   | Service Cooling Exchanger - UNIT 1                      | Duty: 19,000,000 btu/hr<br>Hot Side: Out: 90F, Flow 3000 gpm<br>Cold Side In: 78F, flow 4300                                              | 100%                    |                              |                                                                                                                                                                                                                | 00A  |
| 2    | WB       | ME        | 001B     | New   | Service Cooling Exchanger - UNIT 2                      | Duty: 19,000,000 btu/hr<br>Hot Side: Out: 90F, Flow 3000 gpm<br>Cold Side In: 78F, flow 4300                                              | 100%                    |                              |                                                                                                                                                                                                                | 00A  |
| 1    | WB       | SCW HX    | 1        | EXIST | SERVICE COOLING WATER HX                                | Shell and tube                                                                                                                            |                         |                              | Remove and replace with new HX 1-WB-ME-001A                                                                                                                                                                    | 00B  |
| 2    | WB       | SCW HX    | 1        | EXIST | SERVICE COOLING WATER HX                                | Shell and tube                                                                                                                            |                         |                              | Remove and replace with new HX 2-WB-ME-001A                                                                                                                                                                    | 00B  |
| 1    | WB       | SCW HX    | 2        | EXIST | SERVICE COOLING WATER HX                                | Shell and tube                                                                                                                            |                         |                              | Remove and replace with new HX 1-WB-ME-001B                                                                                                                                                                    | 00B  |
| 2    | WB       | SCW HX    | 2        | EXIST | SERVICE COOLING WATER HX                                | Shell and tube                                                                                                                            |                         |                              | Remove and replace with new HX 2-WB-ME-001B                                                                                                                                                                    | 00B  |
| 1    | WB       |           | 1        | EXIST | CONDENSATE COOLER                                       | Shell and tube                                                                                                                            |                         |                              | Remove and replace with new HX 1-WB-ME-002                                                                                                                                                                     | 00B  |
| 2    | WB       |           | 1        | EXIST | CONDENSATE COOLER                                       | Shell and tube                                                                                                                            |                         |                              | Remove and replace with new HX 1-WB-ME-002                                                                                                                                                                     | 00B  |
| 1    | WL       | CWP       | 1        | EXIST | CIRCULATING WATER PUMP                                  | Concrete volute pump                                                                                                                      |                         |                              | Decommission                                                                                                                                                                                                   | 00A  |

Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC Study Wet Mechanical (Forced Draft) Cooling

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| Unit | Sys Code | Com. Code | Seq. No. |       | Description                             | Type                                                 | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW)                     | Comments                                                                                                                      | Rev. |
|------|----------|-----------|----------|-------|-----------------------------------------|------------------------------------------------------|-------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------|
| 2    | WL       | CWP       | 1        | EXIST | CIRCULATING WATER PUMP                  | Concrete volute pump                                 |                         |                                                  | Decommission                                                                                                                  | 00A  |
| 1    | WL       | CWP       | 2        | EXIST | CIRCULATING WATER PUMP                  | Concrete volute pump                                 |                         |                                                  | Decommission                                                                                                                  | 00A  |
| 2    | WL       | CWP       | 2        | EXIST | CIRCULATING WATER PUMP                  | Concrete volute pump                                 |                         |                                                  | Decommission                                                                                                                  | 00A  |
| 1    | WL       | ME        | 001      | New   | MECHANICAL DRAFT COOLING TOWER - UNIT 1 | Circular design, 459 ft. dia, 40 fans, 300 hp motors | 1 X 100%                | 11,400 (285 input hp required for each fan x 40) | Minimum spacing between tower is one (1 diameter)                                                                             | 00A  |
| 2    | WL       | ME        | 001      | New   | MECHANICAL DRAFT COOLING TOWER - UNIT 2 | Circular design, 459 ft. dia, 40 fans, 300 hp motors | 1 X 100%                | 11,400 (285 input hp required for each fan x 40) | Minimum spacing between tower is one (1 diameter)                                                                             | 00A  |
| 1    | WL       | MP        | 001A     | New   | CIRCULATING WATER PUMP- Unit 1          | Vertical Turbine, 218250 gpm, 110 ft TDH             | 1 X 25%                 | 7250                                             | Pump to be located in common pump house for tower 001A & 001B                                                                 | 00A  |
| 2    | WL       | MP        | 001A     | New   | CIRCULATING WATER PUMP- Unit 2          | Vertical Turbine, 218250 gpm, 110 ft TDH             | 1 X 25%                 | 7250                                             | Pump to be located in common pump house for tower 001A & 001B                                                                 | 00A  |
| 1    | WL       | MP        | 001B     | New   | CIRCULATING WATER PUMP- Unit 1          | Fabricated Volute, 218250 gpm, 110 ft TDH            | 1 X 25%                 | 7250                                             | Pump to be located in common pump house for tower 001A & 001B                                                                 | 00B  |
| 2    | WL       | MP        | 001B     | New   | CIRCULATING WATER PUMP- Unit 2          | Fabricated Volute, 218250 gpm, 110 ft TDH            | 1 X 25%                 | 7250                                             | Pump to be located in common pump house for tower 001A & 001B                                                                 | 00B  |
| 1    | WL       | MP        | 001C     | New   | CIRCULATING WATER PUMP- Unit 1          | Fabricated Volute, 218250 gpm, 110 ft TDH            | 1 X 25%                 | 7250                                             | Pump to be located in common pump house for tower 001A & 001B                                                                 | 00B  |
| 2    | WL       | MP        | 001C     | New   | CIRCULATING WATER PUMP- Unit 2          | Fabricated Volute, 218250 gpm, 110 ft TDH            | 1 X 25%                 | 7250                                             | Pump to be located in common pump house for tower 001A & 001B                                                                 | 00B  |
| 1    | WL       | MP        | 001D     | New   | CIRCULATING WATER PUMP- Unit 1          | Fabricated Volute, 218250 gpm, 110 ft TDH            | 1 X 25%                 | 7250                                             | Pump to be located in common pump house for tower 001A & 001B                                                                 | 00B  |
| 2    | WL       | MP        | 001D     | New   | CIRCULATING WATER PUMP- Unit 2          | Fabricated Volute, 218250 gpm, 110 ft TDH            | 1 X 25%                 | 7250                                             | Pump to be located in common pump house for tower 001A & 001B                                                                 | 00B  |
| 0    | WL       | MT        | 001      | New   | COOLING TOWER MAKEUP POND - Common      | 5,000,000 gallons                                    | 1 x 100%                |                                                  | ≈2.5 hours (evaporation, drift & blowdown of 33,100 gpm). Pond to be located at a higher elevation than cooling tower basins. | 00A  |
| 1    | WL       | PV        |          | New   | TOWER RISER ISOLATION VALVES - UNIT 1   | Slide Gate                                           | 1 X 12.5%               |                                                  | Supplied by tower vendor.                                                                                                     | 00A  |
| 1    | WL       | PV        |          | New   | TOWER RISER ISOLATION VALVES - UNIT 1   | Slide Gate                                           | 1 X 12.5%               |                                                  | Supplied by tower vendor.                                                                                                     | 00A  |
| 1    | WL       | PV        |          | New   | TOWER RISER ISOLATION VALVES - UNIT 1   | Slide Gate                                           | 1 X 12.5%               |                                                  | Supplied by tower vendor.                                                                                                     | 00B  |
| 1    | WL       | PV        |          | New   | TOWER RISER ISOLATION VALVES - UNIT 1   | Slide Gate                                           | 1 X 12.5%               |                                                  | Supplied by tower vendor.                                                                                                     | 00B  |
| 1    | WL       | PV        |          | New   | TOWER RISER ISOLATION VALVES - UNIT 1   | Slide Gate                                           | 1 X 12.5%               |                                                  | Supplied by tower vendor.                                                                                                     | 00B  |
| 1    | WL       | PV        |          | New   | TOWER RISER ISOLATION VALVES - UNIT 1   | Slide Gate                                           | 1 X 12.5%               |                                                  | Supplied by tower vendor.                                                                                                     | 00B  |
| 1    | WL       | PV        |          | New   | TOWER RISER ISOLATION VALVES - UNIT 1   | Slide Gate                                           | 1 X 12.5%               |                                                  | Supplied by tower vendor.                                                                                                     | 00B  |



Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC StudyWet Mechanical (Forced Draft) Cooling

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| Unit | Sys Code | Com. Code | Seq. No. |     | Description                           | Type                                         | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                          | Rev. |
|------|----------|-----------|----------|-----|---------------------------------------|----------------------------------------------|-------------------------|------------------------------|---------------------------------------------------|------|
| 1    | WL       | PV        |          | New | TOWER RISER ISOLATION VALVES - UNIT 1 | Slide Gate                                   | 1 X 12.5%               |                              | Supplied by tower vendor.                         | 00B  |
| 2    | WL       | PV        |          | New | TOWER RISER ISOLATION VALVES - UNIT 2 | Slide Gate                                   | 1 X 12.5%               |                              | Supplied by tower vendor.                         | 00A  |
| 2    | WL       | PV        |          | New | TOWER RISER ISOLATION VALVES - UNIT 2 | Slide Gate                                   | 1 X 12.5%               |                              | Supplied by tower vendor.                         | 00B  |
| 2    | WL       | PV        |          | New | TOWER RISER ISOLATION VALVES - UNIT 2 | Slide Gate                                   | 1 X 12.5%               |                              | Supplied by tower vendor.                         | 00B  |
| 2    | WL       | PV        |          | New | TOWER RISER ISOLATION VALVES - UNIT 2 | Slide Gate                                   | 1 X 12.5%               |                              | Supplied by tower vendor.                         | 00B  |
| 2    | WL       | PV        |          | New | TOWER RISER ISOLATION VALVES - UNIT 2 | Slide Gate                                   | 1 X 12.5%               |                              | Supplied by tower vendor.                         | 00B  |
| 2    | WL       | PV        |          | New | TOWER RISER ISOLATION VALVES - UNIT 2 | Slide Gate                                   | 1 X 12.5%               |                              | Supplied by tower vendor.                         | 00B  |
| 2    | WL       | PV        |          | New | TOWER RISER ISOLATION VALVES - UNIT 2 | Slide Gate                                   | 1 X 12.5%               |                              | Supplied by tower vendor.                         | 00B  |
| 2    | WL       | PV        |          | New | TOWER RISER ISOLATION VALVES - UNIT 2 | Slide Gate                                   | 1 X 12.5%               |                              | Supplied by tower vendor.                         | 00B  |
| 0    | WO       | ME        |          | New | CIP TANK HEATER                       | 50 KW heater, 10 KW pump                     |                         | 10 KW                        | Add 50 KW to operating power for the 50 KW heater | 00A  |
| 0    | WO       | ML        |          | New | DISSOLVED AIR FLOATATION              | TBD Gallons, TBD L x W x H                   | 9 x 12.5%               | -                            |                                                   | 00A  |
| 0    | WO       | ML        |          | New | FIRST STAGE DUAL MEDIA FILTERS        | 2,630 gpm throughput                         | 30 x 3.6%               | -                            |                                                   | 00A  |
| 0    | WO       | ML        |          | New | SECOND STAGE DUAL MEDIA FILTERS       | 3,540 gpm throughput                         | 22 x 5%                 | -                            |                                                   | 00A  |
| 0    | WO       | ML        |          | New | SWRO CARTRIDGE FILTER                 | 4,370 gpm throughput each                    | 18 x 5.9%               |                              |                                                   | 00A  |
| 0    | WO       | ML        |          | New | CIP CARTRIDGE FILTER                  | 1,000 gpm throughput                         | 1 x 100%                | -                            |                                                   | 00A  |
| 0    | WO       | MP        | 001A     | New | DESAL SEA WATER SUPPLY PUMP           | Vertical Turbine, 368,800 gpm, TDH: 570 feet | 1 x 50%                 | 7300                         |                                                   | 00B  |
| 0    | WO       | MP        | 001B     | New | DESAL SEA WATER SUPPLY PUMP           | Vertical Turbine, 368,800 gpm, TDH: 570 feet | 1 x 50%                 | 7300                         |                                                   | 00B  |
| 0    | WO       | MP        | 001C     | New | DESAL SEA WATER SUPPLY PUMP           | Vertical Turbine, 368,800 gpm, TDH: 570 feet | 1 x 50%                 | 7300                         |                                                   | 00B  |
| 0    | WO       | MP        | 002A     | New | SWRO MMF BACKWASH RETURN PUMP         | Vertical Turbine, 2000 gpm, TDH 100 feet     | 1 x 100%                | 75                           |                                                   | 00B  |
| 0    | WO       | MP        | 002B     | New | SWRO MMF BACKWASH RETURN PUMP         | Vertical Turbine, 2000 gpm, TDH 100 feet     | 1 x 100%                | 75                           |                                                   | 00B  |
| 0    | WO       | MP        |          | New | DAF FORWARDING PUMP                   | 9,780 gpm, 100 ft                            | 10 x 11.1%              | 350                          |                                                   | 00A  |
| 0    | WO       | MP        |          | New | SWRO BOOSTER PUMP                     | 4,240 gpm, 2,000 ft TDH                      | 9 x 12.5%               | 3000                         |                                                   | 00A  |
| 0    | WO       | MP        |          | New | SWRO ENERGY RECOVERY DEVICE           | 5,110 gpm                                    | 9 x 12.5%               | -                            |                                                   | 00A  |
| 0    | WO       | MP        |          | New | SWRO ERD BOOSTER PUMP                 | 5,110 gpm, 200 ft TDH                        | 9 x 12.5%               | 400                          |                                                   | 00A  |
| 0    | WO       | MP        |          | New | CIP RECIRCULATION PUMP                | 1200 gpm, 250 ft TDH                         | 2 x 100%                | 100                          |                                                   | 00A  |
| 0    | WO       | MP        |          | New | SODIUM HYPOCHLORITE DOSING PUMP       | 25 gph                                       | 2 x 100%                | 1                            |                                                   | 00A  |
| 0    | WO       | MP        |          | New | DAF COAGULANT DOSING PUMP             | TBD gph                                      | 2 x 100%                | 1                            |                                                   | 00A  |
| 0    | WO       | MP        |          | New | MMF COAGULANT DOSING PUMP             | TBD gph                                      | 2 x 100%                | 1                            |                                                   | 00A  |
| 0    | WO       | MP        |          | New | ACID DOSING PUMP                      | 25 gph                                       | 2 x 100%                | 1                            |                                                   | 00A  |
| 0    | WO       | MP        |          | New | ANTISCALANT DOSING PUMP               | TBD gph                                      | 2 x 100%                | 1                            |                                                   | 00A  |
| 0    | WO       | MP        |          | New | DECHLORINATION DOSING PUMP            | TBD gph                                      | 2 x 100%                | 1                            |                                                   | 00A  |
| 0    | WO       | MT        |          | New | AIR SATURATION TANK                   | TBD Gallons                                  | 9 x 12.5%               | -                            |                                                   | 00A  |
| 0    | WO       | MT        |          | New | CIP SOLUTION TANK                     | 6,000 gallons                                | 1 x 100%                | -                            |                                                   | 00A  |
| 0    | WO       | MT        |          | New | SODIUM HYPOCHLORITE STORAGE TANK      | 21,000 gallons                               | 1 x 100%                | -                            |                                                   | 00A  |
| 0    | WO       | MT        |          | New | DAF COAGULANT STORAGE TANK            | 21,000 gallons                               | 1 x 100%                | -                            |                                                   | 00A  |
| 0    | WO       | MT        |          | New | MMF COAGULANT STORAGE TANK            | 21,000 gallons                               | 1 x 100%                | -                            |                                                   | 00A  |
| 0    | WO       | MT        |          | New | ACID STORAGE TANK                     | 21,000 gallons                               | 1 x 100%                | -                            |                                                   | 00A  |

| Unit | Sys Code | Com. Code | Seq. No. |     | Description                                            | Type                                                                                                                                                                                          | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                                 | Rev. |
|------|----------|-----------|----------|-----|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------|----------------------------------------------------------|------|
| 0    | WO       | MT        |          | New | ANTISCALANT STORAGE TANK                               | 21,000 gallons                                                                                                                                                                                | 1 x 100%                | -                            |                                                          | 00A  |
| 0    | WO       | MT        |          | New | DECHLORINATION STORAGE TANK                            | 21,000 gallons                                                                                                                                                                                | 1 x 100%                | -                            |                                                          | 00A  |
| 0    | WO       | MW        | 001      | New | <b>DESALINATION PLANT</b>                              | Multiple Train System consisting of multimedia filters (MMF), seawater reverse osmosis (SWRO) trains, clean-in-place (CIP) systems and chemical dosing systems, product flowrate - 33100 gpm. | 100%                    |                              | Estimated Plant area: 422,000 sq feet                    | 00A  |
| 0    | WO       | MW        |          | New | SWRO MEMBRANE UNIT                                     | 3,670 gpm throughput                                                                                                                                                                          | 9 x 12.5%               | -                            |                                                          | 00A  |
| 0    | WR       | MC        |          | New | FILTER "A" VACUUM PUMP                                 | TBD                                                                                                                                                                                           | 2 x 100%                | 5.5                          |                                                          | 00A  |
| 0    | WR       | ML        |          | New | FILTER (GREENLEAF FILTER)                              | 2,800 gpm                                                                                                                                                                                     | 1 x 100%                |                              |                                                          | 00A  |
| 0    | WR       | ML        |          | New | FILTER PRESS                                           | 20 Cft                                                                                                                                                                                        | 2 x 100%                | 5.0                          |                                                          | 00A  |
| 0    | WR       | MP        | 001A     |     | CLARIFIER FORWARDING PUMP                              | Horizontal centrifugal, 3000 gpm, 100 feet TDH                                                                                                                                                | 1 x 100%                |                              |                                                          | 00A  |
| 0    | WR       | MP        | 001B     |     | CLARIFIER FORWARDING PUMP                              | Horizontal centrifugal, 3000 gpm, 100 feet TDH                                                                                                                                                | 1 x 100%                |                              |                                                          | 00A  |
| 0    | WR       | MP        | 002A     | New | RECYCLE WATER CLARIFIER FEED PUMP                      | Horizontal centrifugal, 3000 gpm, 100 feet TDH                                                                                                                                                | 1 x 100%                | 125                          |                                                          | 00A  |
| 0    | WR       | MP        | 002B     | New | RECYCLE WATER CLARIFIER FEED PUMP                      | Horizontal centrifugal, 3000 gpm, 100 feet TDH                                                                                                                                                | 1 x 100%                | 125                          |                                                          | 00B  |
| 0    | WR       | MP        | 003A     |     | CLARIFIER MMF BACKWASH PUMP                            | Vertical Centrifugal, 1000 gpm, 100 feet TDH                                                                                                                                                  | 1 x 100%                |                              |                                                          | 00A  |
| 0    | WR       | MP        | 003B     |     | CLARIFIER MMF BACKWASH PUMP                            | Vertical Centrifugal, 1000 gpm, 100 feet TDH                                                                                                                                                  | 1 x 100%                |                              |                                                          | 00A  |
| 0    | WR       | MP        | 004B     | New | MORO BAY RECYCLE WATER SUPPLY PUMP                     | Vertical Turbine, 800 gpm, 500 feet TDH, 15 feet baseplate to suction bell inlet                                                                                                              | 1 x 100%                | 150                          | Pump station is located approximately 20 miles off site. | 00B  |
| 0    | WR       | MP        | 005A     | New | SAN LUIS OBISPO RECYCLE WATER SUPPLY PUMP              | Vertical Turbine, 2000 gpm, 580 feet TDH, 15 feet baseplate to suction bell inlet                                                                                                             | 1 x 100%                | 400                          | Pump station is located approximately 20 miles off site. | 00B  |
| 0    | WR       | MP        | 005B     | New | SAN LUIS OBISPO RECYCLE WATER SUPPLY PUMP              | Vertical Turbine, 2000 gpm, 580 feet TDH, 15 feet baseplate to suction bell inlet                                                                                                             | 1 x 100%                | 400                          | Pump station is located approximately 20 miles off site. | 00B  |
| 0    | WR       | MP        |          | New | CLARIFIER "A" SLUDGE RECIRCULATION / BLOWDOWN PUMP SET | 140 gpm, 46 ft TDH with VFD                                                                                                                                                                   | 3 x 50%                 | 7.5                          |                                                          | 00A  |
| 0    | WR       | MP        |          | New | FILTER PRESS FEED PUMP                                 | 30 gpm, 100 psig                                                                                                                                                                              | 3 x 50%                 | N/A                          | Air operated diaphragm                                   | 00A  |
| 0    | WR       | MP        |          | New | FILTRATE SUMP TRANSFER PUMP                            | 100 gpm, 46 ft TDH                                                                                                                                                                            | 2 x 100%                | 2.0                          |                                                          | 00A  |
| 0    | WR       | MP        |          | New | SODIUM HYPOCHLORITE DOSING PUMPS                       | 10 gph                                                                                                                                                                                        | 4 x 25%                 | 0.3                          |                                                          | 00A  |
| 0    | WR       | MP        |          | New | FERRIC CHLORIDE DOSING PUMP                            | 20 gph                                                                                                                                                                                        | 4 x 25%                 | 0.5                          |                                                          | 00A  |
| 0    | WR       | MP        |          | New | POLYELECTROLYTE DOSING PUMP                            | 2 gph                                                                                                                                                                                         | 3 x 50%                 | 0.25                         |                                                          | 00A  |
| 0    | WR       | MP        | 004A     | New | MORO BAY RECYCLE WATER SUPPLY PUMP                     | Vertical Turbine, 800 gpm, 500 feet TDH, 15 feet baseplate to suction bell inlet                                                                                                              | 1 x 100%                | 150                          | Pump station is located approximately 20 miles off site. | 00B  |
| 0    | WR       | MT        | 001      | New | RECYCLE WATER STORAGE TANK                             | Field Fabricated Epoxy Coated Carbon Steel, 100,000 gallon                                                                                                                                    | 1 x 100%                |                              | Sized for 30 min storage, 40 ft Diameter and 40 ft High  | 00B  |
| 0    | WR       | MT        |          | New | MIX TANK (RAPID)                                       | 9,300 gallons, 9'D x 20.25'H                                                                                                                                                                  | 1 x 100.3%              |                              |                                                          | 00A  |
| 0    | WR       | MT        |          | New | REACTION TANK (DENSEDEG REACTOR)                       | 37,000 gallons 19'D x 18.5'H                                                                                                                                                                  | 1 x 100.3%              | -                            |                                                          | 00A  |
| 0    | WR       | MT        |          | New | FILTER BACKWASH SUPPLY TANK                            | 21,000 gallons                                                                                                                                                                                | 1 x 100%                | -                            |                                                          | 00A  |
| 0    | WR       | MT        |          | New | SLUDGE STORAGE TANK                                    | 6,000 gallons, 10'D x 12'H                                                                                                                                                                    | 1 x 100%                | -                            |                                                          | 00A  |
| 0    | WR       | MT        |          | New | SLUDGE STORAGE TANK MIXER                              | With VFD                                                                                                                                                                                      | 1 x 100%                | 5.0                          |                                                          | 00A  |
| 0    | WR       | MT        |          | New | SODIUM HYPOCHLORITE BULK STORAGE TANK                  | 5000 gallons                                                                                                                                                                                  | 1 x 100%                | -                            |                                                          | 00A  |
| 0    | WR       | MT        |          | New | FERRIC CHLORIDE STORAGE TANK                           | 5,000 gallons                                                                                                                                                                                 | 1 x 100%                | -                            |                                                          | 00A  |
| 0    | WR       |           |          | New | MIX TANK MIXER                                         | With VFD                                                                                                                                                                                      | 1 x 100%                | 5.0                          |                                                          | 00A  |
| 0    | WR       |           |          | New | REACTION TANK MIXER                                    | With VFD                                                                                                                                                                                      | 3 x 33.3%               | 7.5                          |                                                          | 00A  |
| 0    | WR       |           |          | New | CLARIFIER (DENSEDEG CLARIFIER / THICKENER)             | 2,800 gpm 26'D x 18.5'H                                                                                                                                                                       | 1 x 100%                | -                            |                                                          | 00A  |
| 0    | WR       |           |          | New | CLARIFIER SLUDGE SCRAPER                               | Two arms                                                                                                                                                                                      | 1 x 100%                | 0.5                          |                                                          | 00A  |

| Unit | Sys Code | Com. Code | Seq. No. | Description                      | Type                                                                                                                        | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments | Rev. |
|------|----------|-----------|----------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------------|----------|------|
|      | XN       |           |          | DESAL AREA SANITARY LIFT STATION | 48" diameter concrete sump, vented cover, duplex submersible pumps (50 gpm, TH: 100 ft), control panel, external valve box, |                         |                              |          | 00A  |
|      |          |           |          |                                  |                                                                                                                             |                         |                              |          |      |
|      |          |           |          |                                  |                                                                                                                             |                         |                              |          |      |

# JUOTC - DIABLO CANYON

## Preliminary Mechanical Equipment List Hybrid Cooling

25762-110-M0X-YA-00005

| Rev | Date      | Reason for Revision        | Originator | Checked | Approved |
|-----|-----------|----------------------------|------------|---------|----------|
| 00B | 7/24/2013 | Issued for Estimate Report | RP         | -       | RP       |
| 00A | 7/10/2013 | Issued for Estimating      | RP         | -       | RP       |

JUOTC- DIABLO CANYON  
Preliminary Mechanical Equipment List

25762-11--MOX-YA-00005, Rev. 00B

System Codes

|    |                       |
|----|-----------------------|
| AC | Steam Turbine         |
| AD | Condensate            |
| PF | Fire Protection       |
| PI | Plant Air             |
| PW | Potable Water         |
| TL | Circ Water Chem, Inj, |
| WB | Turbine Bldg Cooling  |
| WL | Circulating Water     |
| WO | Sea Water/Desal       |
| WR | Grey Water            |

Commodity Codes

|    |                                                         |
|----|---------------------------------------------------------|
| MC | Compressors/vacuum Pump                                 |
| ME | Heat Exchange Component (Cooling Tower, Heat Exchanger) |
| ML | Liquid -Solid Separation (Clarifier, Automatic filters) |
| MP | Pump                                                    |
| MT | Tank                                                    |
| MU | Driver                                                  |
| MW | Liquid Separation & Purification (Desal)                |
| PV | Manual Valve                                            |

NOTES:

1. Commodity Codes shown are Bechtel standard codes. Bechtel Commodity codes have been assigned to existing plant equipment numbers to aid in equipment list sorts.

Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC StudyWet / Dry (Hybrid) Mechanical (Forced Draft) Cooling

25762-110-M0X-YA-00005, Revision 00B

| Sys Code | Com. Code | Seq. No. | New/ Existing | Description                                           | Type                                                                                          | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                                                                                 | Rev. |
|----------|-----------|----------|---------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------|------------------------------|----------------------------------------------------------------------------------------------------------|------|
| AC       | MU        |          | Exist         | LP TURBINE                                            |                                                                                               |                         |                              | No modification currently required. Monitoring program should be sent up                                 | 00A  |
| AC       | MU        |          | Exist         | LP TURBINE                                            |                                                                                               |                         |                              | No modification currently required. Monitoring program should be sent up                                 | 00A  |
| AD       | ME        |          | EXIST         | CONDENSER                                             |                                                                                               |                         |                              | Tube side design pressure to be increased to 50 psig<br>Water boxes replaced and condenser rebundled     | 00A  |
| AD       | ME        |          | EXIST         | CONDENSER                                             |                                                                                               |                         |                              | Tube side design pressure to be increased to 50 psig<br>Water boxes replaced and condenser rebundled     | 00A  |
| PF       | PY        |          | New           | FIRE HYDRANT                                          | Dry Barrel Type                                                                               |                         |                              | One every 300 ft, New fire piping 16,188 ft                                                              | 00A  |
| PI       | MC        | 001A     | New           | DESAL PLANT AIR COMPRESSOR                            | Dry, rotary screw 200 scfm 100-125 psig                                                       | 1 x 100%                | 125                          |                                                                                                          | 00A  |
| PI       | MC        | 001B     | New           | DESAL PLANT AIR COMPRESSOR                            | Dry, rotary screw 200 scfm 100-125 psig                                                       | 1 x 100%                | 125                          |                                                                                                          | 00A  |
| PI       | MT        | 001A     | New           | DESAL PLANT AIR RECEIVER                              | 5,000 gallon                                                                                  | 1 x 100%                |                              |                                                                                                          | 00A  |
| PI       | MT        | 001B     | New           | DESAL PLANT AIR RECEIVER                              | 5,000 gallon                                                                                  | 1 x 100%                |                              |                                                                                                          | 00A  |
| PI       | MV        | 001A     | New           | DESAL PLANT AIR DRYER                                 | Heatless, dessicant, dual towers with pre and after filters                                   | 1 x 100%                |                              | Matched to compressor                                                                                    | 00A  |
| PI       | MV        | 001B     | New           | DESAL PLANT AIR DRYER                                 | Heatless, dessicant, dual towers with pre and after filters                                   | 1 x 100%                |                              | Matched to compressor                                                                                    | 00A  |
| PW       | PY        |          | New           | Emergency Shower and Eyewash                          |                                                                                               |                         |                              |                                                                                                          | 00A  |
| TL       | MP        | 001A     | New           | CIRCULATING WATER SULFURIC ACID PUMP - UNIT 1         | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MP        | 001A     | New           | CIRCULATING WATER SULFURIC ACID PUMP - UNIT 2         | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MP        | 001B     | New           | CIRCULATING WATER SULFURIC ACID PUMP - UNIT 1         | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MP        | 001B     | New           | CIRCULATING WATER SULFURIC ACID PUMP - UNIT 2         | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MP        | 002A     | New           | CIRCULATING WATER DISPERSANT PUMP - UNIT 1            | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MP        | 002A     | New           | CIRCULATING WATER DISPERSANT PUMP - UNIT 2            | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MP        | 002B     | New           | CIRCULATING WATER DISPERSANT PUMP - UNIT 1            | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MP        | 002B     | New           | CIRCULATING WATER DISPERSANT PUMP - UNIT 2            | Positive displacement diaphragm metering pump                                                 | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MP        | 003A     | New           | CIRCULATING WATER SODIUM HYPOCHLORITE PUMP - UNIT 1   |                                                                                               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MP        | 003A     | New           | CIRCULATING WATER SODIUM HYPOCHLORITE PUMP - UNIT 2   |                                                                                               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MP        | 003B     | New           | CIRCULATING WATER SODIUM HYPOCHLORITE PUMP - UNIT 1   |                                                                                               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MP        | 003B     | New           | CIRCULATING WATER SODIUM HYPOCHLORITE PUMP - UNIT 2   |                                                                                               | 1 x 100%                | <1                           | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MP        | 004A     | New           | CIRCULATING WATER SCALE INHIBITOR PUMP - UNIT 1       | Positive displacement diaphragm metering pump                                                 | TBD                     | <1                           | Assumes common pump house for tower 001A and 001B; QTY to be determined when budgetary bids are received | 00A  |
| TL       | MP        | 004A     | New           | CIRCULATING WATER SCALE INHIBITOR PUMP - UNIT 1       | Positive displacement diaphragm metering pump                                                 | TBD                     | <1                           | Assumes common pump house for tower 001A and 001B; QTY to be determined when budgetary bids are received | 00A  |
| TL       | MP        | 004B     | New           | CIRCULATING WATER SCALE INHIBITOR PUMP - UNIT 2       | Positive displacement diaphragm metering pump                                                 | TBD                     | <1                           | Assumes common pump house for tower 001A and 001B; QTY to be determined when budgetary bids are received | 00A  |
| TL       | MP        | 004B     | New           | CIRCULATING WATER SCALE INHIBITOR PUMP - UNIT 2       | Positive displacement diaphragm metering pump                                                 | TBD                     | <1                           | Assumes common pump house for tower 001A and 001B; QTY to be determined when budgetary bids are received | 00A  |
| TL       | MT        | 001      | New           | CIRCULATING WATER SULFURIC ACID STORAGE TANK - UNIT 1 | Horizontal cylindrical with dessicant breather for vent and oil-filled loop seal for overflow | 1 x 100%                |                              | Assumes common pump house for tower 001A and 001B                                                        | 00A  |
| TL       | MT        | 001      | New           | CIRCULATING WATER SULFURIC ACID STORAGE TANK - UNIT 2 | Horizontal cylindrical with dessicant breather for vent and oil-filled loop seal for overflow | 1 x 100%                |                              | Assumes common pump house for tower 001A and 001B                                                        | 00A  |

| Sys Code | Com. Code | Seq. No. | New/ Existing | Description                                                 | Type                                                                                                        | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW)           | Comments                                                                                                                          | Rev. |
|----------|-----------|----------|---------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------|
| TL       | MT        | 002      | New           | CIRCULATING WATER DISPERSANT STORAGE TANK - UNIT 1          |                                                                                                             | 1 x 100%                |                                        |                                                                                                                                   | 00A  |
| TL       | MT        | 002      | New           | CIRCULATING WATER DISPERSANT STORAGE TANK - UNIT 2          |                                                                                                             | 1 x 100%                |                                        |                                                                                                                                   | 00A  |
| TL       | MT        | 003      | New           | CIRCULATING WATER SODIUM HYPOCHLORITE STORAGE TANK - UNIT 1 | Vertical cylindrical                                                                                        | 1 x 100%                |                                        |                                                                                                                                   | 00A  |
| TL       | MT        | 003      | New           | CIRCULATING WATER SODIUM HYPOCHLORITE STORAGE TANK - UNIT 2 | Vertical cylindrical                                                                                        | 1 x 100%                |                                        |                                                                                                                                   | 00A  |
| TL       | MT        | 004      | New           | CIRCULATING WATER SCALE INHIBITOR STORAGE TANK - UNIT 1     |                                                                                                             | 1 x 100%                |                                        |                                                                                                                                   | 00A  |
| TL       | MT        | 004      | New           | CIRCULATING WATER SCALE INHIBITOR STORAGE TANK - UNIT 2     |                                                                                                             | 1 x 100%                |                                        |                                                                                                                                   | 00A  |
| WB       | ME        | 002      | New           | CONDENSATE COOLER                                           | Shell and tube, 9,500,000 btu/hr (assumed)<br>Hot side: Flow-1500 gpm (assumed), temp out 90F               |                         |                                        | Replaces existing heat exchanger. Design information for original heat exchanger unavailable from site. Base on piping connection | 00B  |
| WB       | ME        | 002      | New           | CONDENSATE COOLER                                           | Shell and tube, 9,500,000 btu/hr (assumed)<br>Hot side: Flow-1500 gpm (assumed), temp out 90F               |                         |                                        | Replaces existing heat exchanger. Design information for original heat exchanger unavailable from site. Base on piping connection | 00B  |
| WB       | ME        | 001A     | New           | Service Cooling Exchanger - UNIT 1                          | Duty: 19,000,000 btu/hr<br>Hot Side: Out: 90F, Flow 3000 gpm                                                | 100%                    |                                        |                                                                                                                                   | 00A  |
| WB       | ME        | 001A     | New           | Service Cooling Exchanger - UNIT 2                          | Duty: 19,000,000 btu/hr<br>Hot Side: Out: 90F, Flow 3000 gpm                                                | 100%                    |                                        |                                                                                                                                   | 00A  |
| WB       | ME        | 001B     | New           | Service Cooling Exchanger - UNIT 1                          | Duty: 19,000,000 btu/hr<br>Hot Side: Out: 90F, Flow 3000 gpm                                                | 100%                    |                                        |                                                                                                                                   | 00A  |
| WB       | ME        | 001B     | New           | Service Cooling Exchanger - UNIT 2                          | Duty: 19,000,000 btu/hr<br>Hot Side: Out: 90F, Flow 3000 gpm                                                | 100%                    |                                        |                                                                                                                                   | 00A  |
| WL       | ME        | 001A     | New           | MECHANICAL DRAFT HYBRID (WET/DRY) COOLING TOWER - UNIT 1    | Circular design, 459 ft. dia, Wet section - 40 fans, 300 hp motors and Dry section - 40 fans, 200 hp motors | 1 X 100%                | 19,000 (285 input power required each) | Minimum spacing between tower is one (1 diameter)                                                                                 | 00A  |
| WL       | ME        | 001A     | New           | MECHANICAL DRAFT HYBRID (WET/DRY) COOLING TOWER - UNIT 2    | Circular design, 459 ft. dia, Wet section - 40 fans, 300 hp motors and Dry section - 40 fans, 200 hp motors | 1 X 100%                | 19,000 (285 input power required each) | Minimum spacing between tower is one (1 diameter)                                                                                 | 00A  |
| WL       | MP        | 001A     | New           | CIRCULATING WATER PUMP - Unit 1                             | Fabricated Volute, 218,250 gpm, 110 ft TDH                                                                  | 1 X 25%                 | 7250                                   | Pump to be located in common pump house for tower 001A & 001B                                                                     | 00B  |
| WL       | MP        | 001A     | New           | CIRCULATING WATER PUMP - Unit 2                             | Fabricated Volute, 218,250 gpm, 110 ft TDH                                                                  | 1 X 25%                 | 7250                                   | Pump to be located in common pump house for tower 001A & 001B                                                                     | 00B  |
| WL       | MP        | 001B     | New           | CIRCULATING WATER PUMP - Unit 1                             | Fabricated Volute, 218,250 gpm, 110 ft TDH                                                                  | 1 X 25%                 | 7250                                   | Pump to be located in common pump house for tower 001A & 001B                                                                     | 00B  |
| WL       | MP        | 001B     | New           | CIRCULATING WATER PUMP - Unit 2                             | Fabricated Volute, 218,250 gpm, 110 ft TDH                                                                  | 1 X 25%                 | 7250                                   | Pump to be located in common pump house for tower 001A & 001B                                                                     | 00B  |
| WL       | MP        | 001C     | New           | CIRCULATING WATER PUMP - Unit 1                             | Fabricated Volute, 218,250 gpm, 110 ft TDH                                                                  | 1 X 25%                 | 7250                                   | Pump to be located in common pump house for tower 001A & 001B                                                                     | 00B  |
| WL       | MP        | 001C     | New           | CIRCULATING WATER PUMP - Unit 2                             | Fabricated Volute, 218,250 gpm, 110 ft TDH                                                                  | 1 X 25%                 | 7250                                   | Pump to be located in common pump house for tower 001A & 001B                                                                     | 00B  |
| WL       | MP        | 001D     | New           | CIRCULATING WATER PUMP - Unit 1                             | Fabricated Volute, 218,250 gpm, 110 ft TDH                                                                  | 1 X 25%                 | 7250                                   | Pump to be located in common pump house for tower 001A & 001B                                                                     | 00B  |
| WL       | MP        | 001D     | New           | CIRCULATING WATER PUMP - Unit 2                             | Fabricated Volute, 218,250 gpm, 110 ft TDH                                                                  | 1 X 25%                 | 7250                                   | Pump to be located in common pump house for tower 001A & 001B                                                                     | 00B  |
| WL       | MP        | 002A     | New           | HYBRID COOLING TOWER BOOSTER PUMP - UNIT 1                  | 4 Pumps per Tower, 25 ft Static Head                                                                        | 1 X 25%                 | 1140                                   | Supplied by tower vendor.                                                                                                         | 00B  |
| WL       | MP        | 002A     | New           | HYBRID COOLING TOWER BOOSTER PUMP - UNIT 2                  | 4 Pumps per Tower, 25 ft Static Head                                                                        | 1 X 25%                 | 1140                                   | Supplied by tower vendor.                                                                                                         | 00B  |
| WL       | MP        | 002B     | New           | HYBRID COOLING TOWER BOOSTER PUMP - UNIT 1                  | 4 Pumps per Tower, 25 ft Static Head                                                                        | 1 X 25%                 | 1140                                   | Supplied by tower vendor.                                                                                                         | 00B  |
| WL       | MP        | 002B     | New           | HYBRID COOLING TOWER BOOSTER PUMP - UNIT 2                  | 4 Pumps per Tower, 25 ft Static Head                                                                        | 1 X 25%                 | 1140                                   | Supplied by tower vendor.                                                                                                         | 00B  |
| WL       | MP        | 002C     | New           | HYBRID COOLING TOWER BOOSTER PUMP - UNIT 1                  | 4 Pumps per Tower, 25 ft Static Head                                                                        | 1 X 25%                 | 1140                                   | Supplied by tower vendor.                                                                                                         | 00B  |
| WL       | MP        | 002C     | New           | HYBRID COOLING TOWER BOOSTER PUMP - UNIT 2                  | 4 Pumps per Tower, 25 ft Static Head                                                                        | 1 X 25%                 | 1140                                   | Supplied by tower vendor.                                                                                                         | 00B  |

| Sys Code | Com. Code | Seq. No. | New/ Existing | Description                                | Type                                 | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                                                                                             | Rev. |
|----------|-----------|----------|---------------|--------------------------------------------|--------------------------------------|-------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------|------|
| WL       | MP        | 002D     | New           | HYBRID COOLING TOWER BOOSTER PUMP - UNIT 1 | 4 Pumps per Tower, 25 ft Static Head | 1 X 25%                 | 1140                         | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 002D     | New           | HYBRID COOLING TOWER BOOSTER PUMP - UNIT 2 | 4 Pumps per Tower, 25 ft Static Head | 1 X 25%                 | 1140                         | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003A     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 1  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003A     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 2  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003B     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 1  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003B     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 2  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003C     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 1  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003C     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 2  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003D     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 1  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003D     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 2  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003E     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 1  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003E     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 2  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003F     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 1  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003F     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 2  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003G     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 1  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003G     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 2  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003H     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 1  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MP        | 003H     | New           | HYBRID COOLING TOWER VACUUM PUMP - UNIT 2  | 8 Pumps per Tower                    | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00B  |
| WL       | MT        | 001      | New           | COOLING TOWER MAKEUP STORAGE POND          | Pond, 5,000,000 gallons useable      | 100%                    |                              | =2.8 hours (evaporation, drift & blowdown of 33,100 gpm). May use common 5,000,000 gallon pond in lieu of two tanks. | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 1 | Butterfly                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 1 | Butterfly                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 1 | Butterfly                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 1 | Butterfly                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 1 | Butterfly                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 1 | Butterfly                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 1 | Butterfly                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 1 | Butterfly                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 2 | Butterfly                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                                                            | 00A  |



| Sys Code | Com. Code | Seq. No. | New/ Existing | Description                                                    | Type                                                                 | Capacity (%) - Per Unit | Drive Motor Size BHP (or kW) | Comments                                                                     | Rev. |
|----------|-----------|----------|---------------|----------------------------------------------------------------|----------------------------------------------------------------------|-------------------------|------------------------------|------------------------------------------------------------------------------|------|
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 2                     | Butterfly                                                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 2                     | Butterfly                                                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 2                     | Butterfly                                                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 2                     | Butterfly                                                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 2                     | Butterfly                                                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 2                     | Butterfly                                                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       | HV        |          | New           | HYBRID TOWER MOV ISOLATION VALVES - UNIT 2                     | Butterfly                                                            | 1 X 12.5%               |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       |           |          | New           | HYBRID COOLING TOWER PLUME ABATEMENT DAMPER ACTUATORS - UNIT 1 |                                                                      | 1 X 25%                 |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       |           |          | New           | HYBRID COOLING TOWER PLUME ABATEMENT DAMPER ACTUATORS - UNIT 1 |                                                                      | 1 X 25%                 |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       |           |          | New           | HYBRID COOLING TOWER PLUME ABATEMENT DAMPER ACTUATORS - UNIT 1 |                                                                      | 1 X 25%                 |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       |           |          | New           | HYBRID COOLING TOWER PLUME ABATEMENT DAMPER ACTUATORS - UNIT 1 |                                                                      | 1 X 25%                 |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       |           |          | New           | HYBRID COOLING TOWER PLUME ABATEMENT DAMPER ACTUATORS - UNIT 2 |                                                                      | 1 X 25%                 |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       |           |          | New           | HYBRID COOLING TOWER PLUME ABATEMENT DAMPER ACTUATORS - UNIT 2 |                                                                      | 1 X 25%                 |                              | Supplied by tower vendor.                                                    | 00A  |
| WL       |           |          | New           | HYBRID COOLING TOWER PLUME ABATEMENT DAMPER ACTUATORS - UNIT 2 |                                                                      | 1 X 25%                 |                              | Supplied by tower vendor.                                                    | 00A  |
| WO       | ME        |          | New           | CIP TANK HEATER                                                | 50 KW heater, 10 KW pump                                             |                         | 10 KW                        | Add 50 KW to operating power for the 50 KW heater                            | 00A  |
| WO       | ML        |          | New           | DISSOLVED AIR FLOATATION                                       | TBD Gallons, TBD L x W x H                                           | 9 x 12.5%               | -                            |                                                                              | 00A  |
| WO       | ML        |          | New           | FIRST STAGE DUAL MEDIA FILTERS                                 | 2,630 gpm throughput                                                 | 30 x 3.6%               | -                            |                                                                              | 00A  |
| WO       | ML        |          | New           | SECOND STAGE DUAL MEDIA FILTERS                                | 3,540 gpm throughput                                                 | 22 x 5%                 | -                            |                                                                              | 00A  |
| WO       | ML        |          | New           | SWRO CARTRIDGE FILTER                                          | 4,370 gpm throughput each                                            | 18 x 5.9%               |                              |                                                                              | 00A  |
| WO       | ML        |          | New           | CIP CARTRIDGE FILTER                                           | 1,000 gpm throughput                                                 | 1 x 100%                | -                            |                                                                              | 00A  |
| WO       | MP        | 001A     | New           | DESAL SEA WATER SUPPLY PUMP                                    | Vertical Turbine, 38650 gpm, TDH: 570 feet with variable speed drive | 1 x 50%                 | 7300                         | Assumed TDH & Pump Eff to be refined later. Calculation Spreadsheet 12-19-12 | 00A  |
| WO       | MP        | 001B     | New           | DESAL SEA WATER SUPPLY PUMP                                    | Vertical Turbine, 38650 gpm, TDH: 570 feet with variable speed drive | 1 x 50%                 | 7300                         | Assumed TDH & Pump Eff to be refined later. Calculation Spreadsheet 12-19-12 | 00A  |
| WO       | MP        | 001C     | New           | DESAL SEA WATER SUPPLY PUMP                                    | Vertical Turbine, 38650 gpm, TDH: 570 feet with variable speed drive | 1 x 50%                 | 7300                         | Assumed TDH & Pump Eff to be refined later. Calculation Spreadsheet 12-19-12 | 00A  |
| WO       | MP        | 002A     | New           | SWRO MMF BACKWASH RETURN PUMP                                  | Vertical Turbine, 2000 gpm, TDH 100 feet                             | 1 x 100%                | 75                           | Assumed TDH & Pump Eff to be refined later. Calculation Spreadsheet 12-19-12 | 00A  |
| WO       | MP        | 002B     | New           | SWRO MMF BACKWASH RETURN PUMP                                  | Vertical Turbine, 2000 gpm, TDH 100 feet                             | 1 x 100%                | 75                           | Assumed TDH & Pump Eff to be refined later. Calculation Spreadsheet 12-19-12 | 00A  |
| WO       | MP        |          | New           | DAF FORWARDING PUMP                                            | 9,780 gpm, 100 ft                                                    | 10 x 11.1%              | 350                          |                                                                              | 00A  |
| WO       | MP        |          | New           | SWRO BOOSTER PUMP                                              | 4,240 gpm, 2,000 ft TDH                                              | 9 x 12.5%               | 3000                         |                                                                              | 00A  |
| WO       | MP        |          | New           | SWRO ENERGY RECOVERY DEVICE                                    | 5,110 gpm                                                            | 9 x 12.5%               | -                            |                                                                              | 00A  |
| WO       | MP        |          | New           | SWRO ERD BOOSTER PUMP                                          | 5,110 gpm, 200 ft TDH                                                | 9 x 12.5%               | 400                          |                                                                              | 00A  |
| WO       | MP        |          | New           | CIP RECIRCULATION PUMP                                         | 1200 gpm, 250 ft TDH                                                 | 2 x 100%                | 100                          |                                                                              | 00A  |
| WO       | MP        |          | New           | SODIUM HYPOCHLORITE DOSING PUMP                                | 25 gph                                                               | 2 x 100%                | 1                            |                                                                              | 00A  |
| WO       | MP        |          | New           | DAF COAGULANT DOSING PUMP                                      | TBD gph                                                              | 2 x 100%                | 1                            |                                                                              | 00A  |
| WO       | MP        |          | New           | MMF COAGULANT DOSING PUMP                                      | TBD gph                                                              | 2 x 100%                | 1                            |                                                                              | 00A  |
| WO       | MP        |          | New           | ACID DOSING PUMP                                               | 25 gph                                                               | 2 x 100%                | 1                            |                                                                              | 00A  |
| WO       | MP        |          | New           | ANTISCALANT DOSING PUMP                                        | TBD gph                                                              | 2 x 100%                | 1                            |                                                                              | 00A  |
| WO       | MP        |          | New           | DECHLORINATION DOSING PUMP                                     | TBD gph                                                              | 2 x 100%                | 1                            |                                                                              | 00A  |

Preliminary Mechanical Equipment List

Diablo Canyon Power Plant - JUOTC StudyWet / Dry (Hybrid) Mechanical (Forced Draft) Cooling

25762-110-M0X-YA-00005, Revision 00B

| Sys Code | Com. Code | Seq. No. | New/ Existing | Description                                            | Type                                                                                                                                                                                          | Capacity (%)<br>- Per Unit | Drive Motor Size<br>BHP (or kW) | Comments                                                 | Rev. |
|----------|-----------|----------|---------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|----------------------------------------------------------|------|
| WO       | MT        |          | New           | AIR SATURATION TANK                                    | TBD Gallons                                                                                                                                                                                   | 9 x 12.5%                  | -                               |                                                          | 00A  |
| WO       | MT        |          | New           | CIP SOLUTION TANK                                      | 6,000 gallons                                                                                                                                                                                 | 1 x 100%                   | -                               |                                                          | 00A  |
| WO       | MT        |          | New           | SODIUM HYPOCHLORITE STORAGE TANK                       | 21,000 gallons                                                                                                                                                                                | 1 x 100%                   | -                               |                                                          | 00A  |
| WO       | MT        |          | New           | DAF COAGULANT STORAGE TANK                             | 21,000 gallons                                                                                                                                                                                | 1 x 100%                   | -                               |                                                          | 00A  |
| WO       | MT        |          | New           | MMF COAGULANT STORAGE TANK                             | 21,000 gallons                                                                                                                                                                                | 1 x 100%                   | -                               |                                                          | 00A  |
| WO       | MT        |          | New           | ACID STORAGE TANK                                      | 21,000 gallons                                                                                                                                                                                | 1 x 100%                   | -                               |                                                          | 00A  |
| WO       | MT        |          | New           | ANTISCALANT STORAGE TANK                               | 21,000 gallons                                                                                                                                                                                | 1 x 100%                   | -                               |                                                          | 00A  |
| WO       | MT        |          | New           | DECHLORINATION STORAGE TANK                            | 21,000 gallons                                                                                                                                                                                | 1 x 100%                   | -                               |                                                          | 00A  |
| WO       | MW        | 001      | New           | <b>DESALINATION PLANT</b>                              | Multiple Train System consisting of multimedia filters (MMF), seawater reverse osmosis (SWRO) trains, clean-in-place (CIP) systems and chemical dosing systems, product flowrate - 33100 gpm. | 100%                       |                                 | Estimated Plant area: 422,000 sq feet                    | 00A  |
| WO       | MW        |          | New           | SWRO MEMBRANE UNIT                                     | 3,670 gpm throughput                                                                                                                                                                          | 9 x 12.5%                  | -                               |                                                          | 00A  |
| WR       | MC        |          | New           | FILTER "A" VACUUM PUMP                                 | TBD                                                                                                                                                                                           | 2 x 100%                   | 5.5                             |                                                          | 00A  |
| WR       | ML        |          | New           | FILTER (GREENLEAF FILTER)                              | 2,800 gpm                                                                                                                                                                                     | 1 x 100%                   |                                 |                                                          | 00A  |
| WR       | ML        |          | New           | FILTER PRESS                                           | 20 Cft                                                                                                                                                                                        | 2 x 100%                   | 5.0                             |                                                          | 00A  |
| WR       | MP        | 001A     | New           | CLARIFIER FORWARDING PUMP                              | Horizontal centrifugal, 3000 gpm, 100 feet TDH                                                                                                                                                | 1 x 100%                   |                                 |                                                          | 00A  |
| WR       | MP        | 001B     | New           | CLARIFIER FORWARDING PUMP                              | Horizontal centrifugal, 3000 gpm, 100 feet TDH                                                                                                                                                | 1 x 100%                   |                                 |                                                          | 00B  |
| WR       | MP        | 002A     | New           | RECYCLE WATER CLARIFIER FEED PUMP                      | Horizontal centrifugal, 3000 gpm, 100 feet TDH                                                                                                                                                | 1 x 100%                   |                                 |                                                          | 00B  |
| WR       | MP        | 002B     | New           | RECYCLE WATER CLARIFIER FEED PUMP                      | Horizontal centrifugal, 3000 gpm, 100 feet TDH                                                                                                                                                | 1 x 100%                   |                                 |                                                          | 00A  |
| WR       | MP        | 003A     | New           | CLARIFIER MMF BACKWASH PUMP                            | Vertical Centrifugal, 1000 gpm, 100 feet TDH                                                                                                                                                  | 1 x 100%                   |                                 |                                                          | 00A  |
| WR       | MP        | 003B     | New           | CLARIFIER MMF BACKWASH PUMP                            | Vertical Centrifugal, 1000 gpm, 100 feet TDH                                                                                                                                                  | 1 x 100%                   |                                 |                                                          | 00A  |
| WR       | MP        | 004A     | New           | MORO BAY RECYCLE WATER SUPPLY PUMP                     | Vertical Turbine, 800 gpm, 500 feet TDH, 15 feet baseplate to suction bell inlet                                                                                                              | 1 x 100%                   | 150                             | Pump station is located approximately 20 miles off site. | 00B  |
| WR       | MP        | 004B     | New           | MORO BAY RECYCLE WATER SUPPLY PUMP                     | Vertical Turbine, 800 gpm, 500 feet TDH, 15 feet baseplate to suction bell inlet                                                                                                              | 1 x 100%                   | 150                             | Pump station is located approximately 20 miles off site. | 00B  |
| WR       | MP        | 005A     | New           | SAN LUIS OBISPO RECYCLE WATER SUPPLY PUMP              | Vertical Turbine, 2000 gpm, 580 feet TDH, 15 feet baseplate to suction bell inlet                                                                                                             | 1 x 100%                   | 400                             | Pump station is located approximately 20 miles off site. | 00B  |
| WR       | MP        | 005B     | New           | SAN LUIS OBISPO RECYCLE WATER SUPPLY PUMP              | Vertical Turbine, 2000 gpm, 580 feet TDH, 15 feet baseplate to suction bell inlet                                                                                                             | 1 x 100%                   | 400                             | Pump station is located approximately 20 miles off site. | 00B  |
| WR       | MP        |          | New           | CLARIFIER "A" SLUDGE RECIRCULATION / BLOWDOWN PUMP SET | 140 gpm, 46 ft TDH with VFD                                                                                                                                                                   | 3 x 50%                    | 7.5                             |                                                          | 00A  |
| WR       | MP        |          | New           | FILTER PRESS FEED PUMP                                 | 30 gpm, 100 psig                                                                                                                                                                              | 3 x 50%                    | N/A                             | Air operated diaphragm                                   | 00A  |
| WR       | MP        |          | New           | FILTRATE SUMP TRANSFER PUMP                            | 100 gpm, 46 ft TDH                                                                                                                                                                            | 2 x 100%                   | 2.0                             |                                                          | 00A  |
| WR       | MP        |          | New           | SODIUM HYPOCHLORITE DOSING PUMPS                       | 10 gph                                                                                                                                                                                        | 4 x 25%                    | 0.3                             |                                                          | 00A  |
| WR       | MP        |          | New           | FERRIC CHLORIDE DOSING PUMP                            | 20 gph                                                                                                                                                                                        | 4 x 25%                    | 0.5                             |                                                          | 00A  |
| WR       | MP        |          | New           | POLYELECTROLYTE DOSING PUMP                            | 2 gph                                                                                                                                                                                         | 3 x 50%                    | 0.25                            |                                                          | 00A  |
| WR       | MT        | 001      | New           | RECYCLE WATER STORAGE TANK                             | Field Fabricated Epoxy Coated Carbon Steel, 100,000 gallon                                                                                                                                    | 1 x 100%                   |                                 | Sized for 30 min storage, 40 ft Diameter and 40 ft High  | 00B  |
| WR       | MT        |          | New           | MIX TANK (RAPID)                                       | 9,300 gallons, 9'D x 20.25'H                                                                                                                                                                  | 1 x 100.3%                 |                                 |                                                          | 00A  |
| WR       | MT        |          | New           | REACTION TANK (DENSEDEG REACTOR)                       | 37,000 gallons 19'D x 18.5'H                                                                                                                                                                  | 1 x 100.3%                 | -                               |                                                          | 00A  |
| WR       | MT        |          | New           | FILTER BACKWASH SUPPLY TANK                            | 21,000 gallons                                                                                                                                                                                | 1 x 100%                   | -                               |                                                          | 00A  |
| WR       | MT        |          | New           | SLUDGE STORAGE TANK                                    | 6,000 gallons, 10'D x 12'H                                                                                                                                                                    | 1 x 100%                   | -                               |                                                          | 00A  |
| WR       | MT        |          | New           | SLUDGE STORAGE TANK MIXER                              | With VFD                                                                                                                                                                                      | 1 x 100%                   | 5.0                             |                                                          | 00A  |
| WR       | MT        |          | New           | SODIUM HYPOCHLORITE BULK STORAGE TANK                  | 5000 gallons                                                                                                                                                                                  | 1 x 100%                   | -                               |                                                          | 00A  |
| WR       | MT        |          | New           | FERRIC CHLORIDE STORAGE TANK                           | 5,000 gallons                                                                                                                                                                                 | 1 x 100%                   | -                               |                                                          | 00A  |
| WR       |           |          | New           | MIX TANK MIXER                                         | With VFD                                                                                                                                                                                      | 1 x 100%                   | 5.0                             |                                                          | 00A  |
| WR       |           |          | New           | REACTION TANK MIXER                                    | With VFD                                                                                                                                                                                      | 3 x 33.3%                  | 7.5                             |                                                          | 00A  |
| WR       |           |          | New           | CLARIFIER (DENSEDEG CLARIFIER / THICKENER)             | 2,800 gpm 26'D x 18.5'H                                                                                                                                                                       | 1 x 100%                   | -                               |                                                          | 00A  |
| WR       |           |          | New           | CLARIFIER SLUDGE SCRAPER                               | Two arms                                                                                                                                                                                      | 1 x 100%                   | 0.5                             |                                                          | 00B  |
| XN       |           |          | New           | DESAL AREA SANITARY LIFT STATION                       | 48" diameter concrete sump, vented cover, duplex submersible pumps (50 gpm, TH:100 ft), control panel, external valve box,                                                                    |                            |                                 |                                                          | 00A  |
| WL       | CWP       | 1        | EXIST         | CIRCULATING WATER PUMP                                 | Concrete volute pump                                                                                                                                                                          |                            |                                 | Decommission                                             | 00B  |

| Sys Code | Com. Code | Seq. No. | New/ Existing | Description              | Type                 | Capacity (%)<br>- Per Unit | Drive Motor Size<br>BHP (or kW) | Comments                                    | Rev. |
|----------|-----------|----------|---------------|--------------------------|----------------------|----------------------------|---------------------------------|---------------------------------------------|------|
| WL       | CWP       | 1        | EXIST         | CIRCULATING WATER PUMP   | Concrete volute pump |                            |                                 | Decommission                                | 00B  |
| WL       | CWP       | 2        | EXIST         | CIRCULATING WATER PUMP   | Concrete volute pump |                            |                                 | Decommission                                | 00B  |
| WL       | CWP       | 2        | EXIST         | CIRCULATING WATER PUMP   | Concrete volute pump |                            |                                 | Decommission                                | 00B  |
| WB       | SCW HX    | 1        | EXIST         | SERVICE COOLING WATER HX | Shell and tube       |                            |                                 | Remove and replace with new HX 1-WB-ME-001A | 00B  |
| WB       | SCW HX    | 1        | EXIST         | SERVICE COOLING WATER HX | Shell and tube       |                            |                                 | Remove and replace with new HX 2-WB-ME-001A | 00B  |
| WB       | SCW HX    | 2        | EXIST         | SERVICE COOLING WATER HX | Shell and tube       |                            |                                 | Remove and replace with new HX 1-WB-ME-001B | 00B  |
| WB       | SCW HX    | 2        | EXIST         | SERVICE COOLING WATER HX | Shell and tube       |                            |                                 | Remove and replace with new HX 2-WB-ME-001B | 00B  |
| WB       |           | 1        | EXIST         | CONDENSATE COOLER        | Shell and tube       |                            |                                 | Remove and replace with new HX 1-WB-ME-002  | 00B  |
| WB       |           | 1        | EXIST         | CONDENSATE COOLER        | Shell and tube       |                            |                                 | Remove and replace with new HX 2-WB-ME-002  | 00B  |
|          |           |          |               |                          |                      |                            |                                 |                                             |      |
|          |           |          |               |                          |                      |                            |                                 |                                             |      |
|          |           |          |               |                          |                      |                            |                                 |                                             |      |
|          |           |          |               |                          |                      |                            |                                 |                                             |      |
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|          |           |          |               |                          |                      |                            |                                 |                                             |      |
|          |           |          |               |                          |                      |                            |                                 |                                             |      |