Chapter 3: Cost to Cost Test

INTRODUCTION

This chapter presents the cost-cost test for alternative site-specific requirements. The first two sections present the requirements of the cost-cost test and the data needs to carry out the test. Section 3 presents the step-by-step instructionf for carrying out the cost-cost test and the tabular data to be used with the cost-cost test. Section 4 presents the background information that supports the cost correction equations.

1.0 SITE SPECIFIC REQUIREMENTS - THE COST TO COST TEST

The final rule in § 125.94(a) (2) through (4) allows for a comparison between the projected costs of compliance of a facility (based on data specific to the facility) to the costs considered by the Agency for a facility like yours. A facility requesting a cost cost determination must submit a Comprehensive Cost Evaluation Study and a Site Specific Technology Plan, the requirements of each can be found at §125.94(b)(6)(i) and 125.94(b)(6)(iii), respectively. The Comprehensive Cost Evaluation Study must include engineering cost estimates in sufficient detail to document the costs of implementing design and construction technologies, operational measures, and/or restoration measures at the facility that would be needed to meet the applicable performance standards of the final rule; a demonstration that the documented costs significantly exceed the costs considered by EPA for a facility like yours in establishing the applicable performance standards; and engineering cost estimates in sufficient detail to document the costs of implementing alternative design and construction technologies, operational measures, and/or restoration measures in the facility's Site-Specific Technology Plan. If the facility's costs are significantly greater than the costs considered by the Agency for a facility like yours, then the Director may make a site-specific determination of the best technology available for minimizing adverse environmental impact.

2.0 DETERMINING COSTS

To make the demonstration that compliance costs are significantly greater than those considered by EPA, the facility must first determine its actual compliance costs. To do this, the facility first should determine the costs for any new design and construction technologies, operational measures, and/or restoration measures that would be needed to comply with the requirements of § 125.94 (a)(2) through (4), which may include the following cost categories: the installed capital cost of the technologies or measures, the net operation and maintenance (O&M) costs for the technologies or measures (that is, the O&M costs for the final suite of technologies and measures once all new technologies and measures have been installed less the O&M costs of any existing technologies and measures), the net revenue losses (lost revenues minus saved variable costs) associated with net construction downtime (actual construction downtime minus that portion which would have been needed anyway for repair, overhaul or maintenance) and any pilot study costs associated with on-site verification and/or optimization of the technologies or measures.

Costs should be annualized using a 7 percent discount rate, with an amortization period of 10 years for capital costs and 30 years for pilot study costs and construction downtime net revenue losses. Annualized costs should be converted to 2002 dollars ($2002), using the engineering news record construction cost index (see Engineering News-Record. New York: McGraw Hill. Annual average value is 6538 for year 2002). Costs for permitting and post-construction monitoring should not be included in this estimate, as these are not included in the EPA-estimated costs against which they will be compared, as described below. Because existing facilities already incur monitoring and permitting costs, and these are largely independent of the specific performance standards adopted and technologies selected to meet them, it is both simpler and more appropriate to conduct the cost comparison required in this provision using direct compliance costs (capital, net O&M, net construction downtime, and pilot study) only. Adding permitting and monitoring costs to both sides of the comparison would complicate the methodology without substantially changing the results.

To calculate the costs that the Administrator considered for a like facility in establishing the applicable performance standards, the facility must follow the steps laid out below, based on the information in Table 3-2 provided in Section 3.0 of this chapter. Note that those facilities that claimed the flow data that they submitted to EPA, and which EPA used to calculate compliance costs, as confidential business information (CBI), are not listed in the table provided in Table 3-2, unless the total calculated compliance costs were zero. If these facilities wish to request a site-specific determination of best technology available based on significantly greater compliance costs, they will need to waive their claim of confidentiality prior to submitting the Comprehensive Cost Evaluation Study so that EPA can make the necessary flow data available to the

facility, Director, and public.

Cost Categories Considered By The Agency

The installed **capital cost** of the technology (suite) represents the material, equipment, and labor costs of the technology and retrofit, the civil and site work costs, instrumentation and controls, electrical (installed), construction management, engineering and architectural fees, contingency, overhead and profit, non-316(b) related permits, metalwork, performance bond, and insurance. Once determined by the facility, the capital costs for comparison to the Agency's estimates must be amortized with a 7 percent discount factor and a 10 year amortization period. The dollar years of the capital costs must be expressed in 2002 average dollars. The Agency used the Engineering News-Record Construction Cost Index (McGraw-Hill, New York, NY) for estimating dollar year values. The capital costs are presented in pre-tax form for the cost to cost comparison.

The **net operation and maintenance costs** of the technology or technology suite is the projected operation and maintenance costs of the upgraded intake technology, post-construction and start-up, less the operation and maintenance costs of the cooling water intake structures(s) in-place at the facility prior to enacting the technology upgrade. The Agency considered the periodic replacement of parts, the periodic and intermittent maintenance of the technology (such as debris clearing, parts changeout, etc.), the periodic and intermittent inspection of the technology, the energy usage of screen motors and spray wash and fish return pumps, and management/technician labor. Additional factors may apply for special intakes located far offshore, such as diver inspections, or for net systems or wedgewire screens, such as energy and maintenance costs associated with self-cleaning airburst systems. The Agency notes that for the technologies considered for meeting the requirements of the final rule that cooling water intake flows did not change from baseline to the technology upgrade. As a result the operation and maintenance of the main cooling water intake pumps would typically not be considered a component of a net operation and maintenance cost for the purposes of the cost to cost test. Some facilities may choose to comply with the requirements of the rule by adopting strategic flow reduction activities. As such, reduced O&M costs associated with reduced intake flows for strategic plant operation should not be factored into the compliance comparison of costs, as the Agency did not account for these savings in its cost estimates. Similarly, if dredging of canals or screen areas was a typical portion of the maintenance activities of the site at baseline, then the net operation and maintenance costs for the purposes of the cost to cost test may not include these costs. The Agency represented O&M costs on an annual basis. The O&M costs are presented in pre-tax form for the cost to cost comparison.

The Agency determined the cost of the technology connection outage **downtime** as the revenue loss during the downtime less the variable expenses that would normally be incurred during that period. The duration of the connection outage should be the total construction outage less any concurrent outages due to planned maintenance. The Agency notes that with the flexible compliance scheduling allowed with the final rule that facilities will have opportunities to plan construction schedules to take advantage of concurrent downtime periods (such as period inspections and maintenance outages). The following formulas were used to calculate the net loss due to downtime:

$$Cost\ of\ Connection\ Outage = Revenue\ Loss - Variable\ Production\ Costs$$

where

$$Variable\ Production\ Cost = Fuel\ Cost + Variable\ Operating \wedge Maintenance\ Cost.$$

The Agency amortized net construction downtime costs using a discount rate of 7 percent and an amortization period of 30 years. The downtime costs are presented in pre-tax form for the cost to cost comparison.

The technology **pilot study** costs associated with site verification of the technology estimated by the Agency included the total capital and total operation and maintenance costs associated with a technology pilot study. Because pilot studies, by their nature, are short term activities, the Agency represented the total cost of the study as a one-time capital cost, even though the actual study may be extend out over a half-year to two-years; the total cost of the study was represented as a single one-time cost. Therefore, facilities enacting pilot studies should represent the total costs of the pilot study in a similar manner. Similar to a construction project lasting several months to years, some minor correction for dollar years may be necessary. The Agency amortized total capital costs using a discount rate of 7 percent and an amortization period of 30 years. The pilot study costs are presented in pre-tax form for the cost to cost comparison.

Site-specific Technology Plan

The Site-Specific Technology Plan is developed based on the results of the Comprehensive Cost Evaluation Study and must contain the following information:

- A narrative description of the design and operation of all existing and proposed design and construction technologies, operational measures, and/or restoration measures that you have selected;
- An engineering estimate of the efficacy of the proposed and/or implemented design and construction technologies or operational measures, and/or restoration measures. This estimate must include a site-specific evaluation of the suitability of the technologies or operational measures for reducing impingement mortality and/or entrainment (as applicable) of all life stages of fish and shellfish based on representative studies (e.g., studies that have been conducted at cooling water intake structures located in the same waterbody type with similar biological characteristics) and, if applicable, site-specific technology prototype or pilot studies. If restoration measures will be used, you must provide a Restoration Plan (see § 125.95 (b)(5));
- A demonstration that the proposed and/or implemented design and construction technologies, operational measures, and/or restoration measures achieve an efficacy that is as close as practicable to the applicable performance standards of § 125.94(b) without resulting in costs significantly greater than either the costs considered by the Administrator for a facility like yours in establishing the applicable performance standards, or as appropriate, the benefits of complying with the applicable performance standards at your facility; and,
- Design and engineering calculations, drawings, and estimates prepared by a qualified professional to support the elements of the Plan.

3.0 COST TO COST TEST INSTRUCTIONS

The data in Table 3-2 is keyed to survey ID number. Table 3-3 presents Facilities should be able to determine their ID number from the survey they submitted to EPA during the rule development process.

Step 1: Determine which technology EPA modeled as the most appropriate compliance technology for your facility. To do this, use the code in column 12 of Table 3-2 to look up the modeled technology in Table 3-1 below.

Table 3-1: Technology Codes and Descriptions

Technology Code	Technology Description
1	Addition of fish handling and return system to an existing traveling screen system
2	Addition of fine-mesh screens to an existing traveling screen system
3	Addition of a new, larger intake with fine-mesh and fish handling and return system in front of an existing intake system
4	Addition of passive fine-mesh screen system (cylindrical wedgewire) near shoreline with mesh width of 1.75 mm
5	Addition of a fish net barrier system
6	Addition of an aquatic filter barrier system
7	Relocation of an existing intake to a submerged offshore location with passive fine-mesh screen inlet with mesh width of 1.75 mm
8	Addition of a velocity cap inlet to an existing offshore intake
9	Addition of passive fine-mesh screen to an existing offshore intake with mesh width of 1.75 mm
11	Addition of dual-entry, single-exit traveling screens (with fine- mesh) to a shoreline intake system
12	Addition of passive fine-mesh screen system (cylindrical wedgewire) near shoreline with mesh width of 0.76 mm
13	Addition of passive fine-mesh screen to an existing offshore intake with mesh width of 0.76 mm
14	Relocation of an existing intake to a submerged offshore location with passive fine-mesh screen inlet with mesh width of 0.76 mm

Step 2: Using EPA's costing equations, calculate the annualized capital and net operation and maintenance costs for a facility with your design flow using this technology. To do this, you should use the following formula, which is derived from the results of EPA's costing equations (see Section 4.0 of this chapter for more discussion) for a facility like yours using the selected technology:

$$y_f = y_{epa} + m*(x_f - x_{epa}), \quad (1)$$

where y_f = annualized capital and net O&M costs using actual facility design intake flow,
x_f = actual facility design intake flow (in gallons per minute),
x_{epa} = EPA assumed facility design intake flow (in gallons per minute) (column 3),
y_{epa} = Annualized capital and net O&M costs using EPA design intake flow (column 7), and
m = design flow adjustment slope (column 13).

EPA has provided some additional information in Table 3-2, beyond that which is needed to perform the calculations, to facilitate comparison of the results obtained using formula 1 to the detailed costing equations presented in Chapter 1 of this document, for those who wish to do so. EPA does not expect facilities or permit writers to do this, and has in fact provided the simplified formula to preclude the need for doing so, but is providing the additional information to increase transparency. Thus, for informational purposes, the total capital cost (not annualized), baseline O&M cost, and post construction O&M cost from which the annualized capital and net O&M costs using EPA design intake flow (y_{epa} in column 7) are derived are listed separately in columns 4 through 6. To calculate y_{epa}, EPA annualized the total capital cost using a 7 percent discount rate and 10 year amortization period, and added the result to the difference between the post construction O&M costs and the baseline O&M costs.

Note that some entries in Table 3-2 have "n/a" indicated for the EPA assumed design intake flow in column 2. These are facilities for which EPA projected that they would already meet otherwise applicable performance standards based on existing technologies and measures. EPA projected zero compliance costs for these facilities, irrespective of design intake flow, so no flow adjustment is needed. These facilities should use $0 as their value for the costs considered by EPA for a like facility in establishing the applicable performance standards. EPA recognizes that these facilities will still incur permitting and monitoring costs, but these are not included in the cost comparison for the reasons stated above.

Step 3: Determine the annualized net revenue loss associated with net construction downtime that EPA modeled for the facility to install the technology and the annualized pilot study costs that EPA modeled for the facility to test and optimize the technology. The sum of these two figures is listed in column 10. For informational purposes, the total (not annualized) net revenue losses from construction downtime, and total (not annualized) pilot study costs are listed separately in columns 8 and 9. These two figures were annualized using a 7% discount rate and 30 year amortization period and the results added together to get the annualized facility downtime and pilot study costs in column 10.

Step 4: Add the annualized capital and O&M costs using actual facility design intake flow (y_f from step 2), and the annualized facility downtime and pilot study costs (column 10 from step 3) to get the preliminary costs considered by EPA for a facility like yours.

Step 5: Determine which performance standards in 125.94(b)(1) and (2) (i.e., impingement mortality only, or impingement mortality and entrainment) are applicable to your facility, and compare these to the performance standards on which EPA's cost estimates are based, listed in column 11. If the applicable performance standards and those on which EPA's cost estimates are based are the same, then the preliminary costs considered by EPA for a facility like yours are the final costs considered by EPA for a facility like yours. If only the impingement mortality performance standards are applicable to your facility, but EPA based its cost estimates on impingement mortality and entrainment performance standards, then you should divide the preliminary costs by a factor of 2.148 to get the final costs. If impingement mortality and entrainment performance standards are applicable to your facility, but EPA based its cost estimates on impingement mortality performance standards only, then you should multiply the preliminary costs by 2.148 to get the final costs. See section 4.0 of this chapter for more discussion of the performance standard correction factor.

Survey IDs

The survey ID for a facility was that assigned to the recipients of either the short-technical questionnaire (STQ) or the detailed questionnaire (DQ). The Agency assigned STQ recipients questionnaire IDs in the form of "AUT0001", where the "AUT" prefix was constant and the four number suffix varies for each facility. The Agency assigned DQ recipient questionnaire IDs dependent on the type of recipient. Utilities received IDs in the form of "DUT1000", where the "DUT"

prefix was constant and the four number suffix varied in the "1000" range for each recipient. Non-utilities received IDs in the form of "DNU2000", where the "DNU" prefix was constant and the four number suffix varied in the "2000" range for each recipient. Municipality operated facilities received IDs in the form of "DMU3000", where the "DMU" prefix was constant and the four number suffix varied in the "3000" range for each recipient.

Table 3-2 presents costs for individual cooling water intake structures only for the case of DQ recipients. For STQ recipients, the Agency necessarily estimated costs on the facility-level by assuming that the entire set of intakes at the facility would have the intake characteristics reported at the facility level. STQ recipients would make the potential corrections to EPA's estimated costs at the facility-level only (as outlined in Steps 2, 3, and 4 below).

In completing the questionnaire, the DQ respondents assigned each cooling water intake structure at their plant a designating number or name (through part 2, question 1a). The Agency has included these reported intake descriptors in Table 3-2 to allow the DQ recipients to identify individual intake structures. Even though the cost to cost test is evaluated on the facility-level, DQ recipients would make potential corrections to EPA's estimated capital and O&M costs as outlined in Step 2 for each cooling water intake structure and then aggregate at the facility-level.

If a facility within the scope of the rule completed and returned a questionnaire but is not included in Table 3-1, then the facility may have claimed cooling water intake flow information pertaining to their facility to be confidential business information (CBI). If these facilities wish to request a site-specific determination of best technology available based on significantly greater compliance costs, they will need to waive their claim of confidentiality prior to submitting the Comprehensive Cost Evaluation Study so that EPA can make the necessary flow data available to the facility, Director, and public.

Because the Agency has based its list of facilities projected to be within the scope of the rule on information collected through a survey that is subject to some degree of uncertainty, there could be a small set of facilities that are subject to this rule that may not be included in Table 3-2. Table 3-2 is the Agency's best estimate of the facilities that it projects to fall within the scope of the final rule (less those claiming flow information as CBI). However, Table 3-2 is not a definitive list of the in-scope population of facilities for the final rule. Therefore, a complying facility may discover when attempting to conduct a cost to cost test that the Agency did not include costs for the particular facility in Table 3-2. This is not to say that the Agency has not considered costs for the facility, as the Agency scaled its national costs to represent weighted a population of facilities not receiving the survey. In the case of a facility not included in Table 3-2, the method for determining the representative costs that EPA considered for a similar facility should be conducted by assessing the projected annual capital cost + net annual O&M cost of the intake technology determined by a facility like that facility. Figures 3-1 through 3-13 provide estimated equations for calculating annual capital cost + net annual O&M cost for each technology module considered by the Agency. In addition, the facility should find in Table 3-2 facilities with the same cost-correction equation slope (m) and could utilize the median annualized facility-level downtime and pilot study costs for that technology in the comparison.

Tabe 3-2: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 3	column 4	column 5	column 6	column 7
Facility ID	Intake ID	EPA Assumed Design Intake Flow, gpm (x_{epa})	Capital Cost	Baseline O&M Annual Cost	Post Construction O&M Annual Cost	Annualized Capital[3] + Net O&M Using EPA Design Intake Flow[2] (y_{epa})
AUT0001		401,881	$ 322,884	$ 699,866	$ 795,393	$ 141,498
AUT0002		549,533	$ 5,750,259	$ 68,489	$ 104,063	$ 854,282
AUT0004		239,107	$ 528,427	$ 30,725	$ 104,458	$ 148,969
AUT0011		453,758	$ 967,675	$ 55,545	$ 193,660	$ 275,890
AUT0012		2,018,917	$ 48,835,329	$ 360,813	$ 989,876	$ 7,582,115
AUT0014		572,383	$ 2,732,729	$ 91,057	$ 110,893	$ 408,915
AUT0015		1,296,872	$ 510,784	$ -	$ 134,070	$ 206,794
AUT0016		301,127	$ 41,613	$ -	$ 28,195	$ 34,120
AUT0019		848,784	$ 11,094,343	$ 271,045	$ 994,876	$ 2,303,416
AUT0020		207,514	$ 1,517,779	$ 34,859	$ 42,089	$ 223,327
AUT0021		267,138	$ 1,187,727	$ 65,395	$ 263,140	$ 366,851
AUT0024		639,702	$ 72,402	$ -	$ 47,164	$ 57,472
AUT0027		404,214	$ 2,362,864	$ 147,563	$ 532,881	$ 721,737
AUT0044		457,869	$ 183,653	$ -	$ 57,997	$ 84,145
AUT0049		820,866	$ 6,080,054	$ 196,361	$ 797,241	$ 1,466,543
AUT0051		348,052	$ 11,832,011	$ 17,181	$ 50,842	$ 1,718,273
AUT0053		147,762	$ 454,296	$ 27,346	$ 108,078	$ 145,413
AUT0057		56,391	$ 271,166	$ 19,811	$ 65,525	$ 84,322
AUT0058		624,376	$ 8,582,766	$ 68,231	$ 225,908	$ 1,379,670
AUT0064		553,145	$ 3,039,302	$ 195,656	$ 695,636	$ 932,709
AUT0066		65,571	$ 2,006,184	$ 80,531	$ 63,685	$ 268,790
AUT0078		288,792	$ 5,683,876	$ 267,577	$ 1,083,987	$ 1,625,667
AUT0084		2,100,000	$ 2,976,122	$ 3,003,550	$ 3,318,577	$ 738,760
AUT0085		975,261	$ 23,279,870	$ 341,127	$ 452,608	$ 3,426,011
AUT0092		2,786,349	$ 929,777	$ -	$ 269,122	$ 401,501
AUT0095		67,369	$ 55,826	$ 120,772	$ 140,422	$ 27,598
AUT0106		325,449	$ 1,104,684	$ 55,757	$ 223,858	$ 325,383
AUT0110		551,114	$ 6,445,617	$ 70,141	$ 104,066	$ 951,636
AUT0120		207,333	$ 2,085,862	$ 55,736	$ 225,656	$ 466,900
AUT0123		62,226	$ 106,975	$ 7,021	$ 20,122	$ 28,333
AUT0127		104,672	$ 573,136	$ 34,651	$ 118,506	$ 165,457
AUT0130		929,723	$ 8,127,384	$ 402,025	$ 1,628,672	$ 2,383,804
AUT0131		492,987	$ 3,299,931	$ 195,321	$ 694,407	$ 968,921
AUT0134		99,252	$ 3,334,593	$ 8,170	$ 35,218	$ 501,819
AUT0137		401,222	$ 1,916,441	$ 117,385	$ 475,099	$ 630,572
AUT0139		369,074	$ 117,095	$ -	$ 49,945	$ 66,617
AUT0142		407,669	$ 9,461,494	$ 66,798	$ 78,036	$ 1,358,342
AUT0143		289,294	$ 971,645	$ 50,004	$ 200,412	$ 288,748
AUT0146		213,207	$ 1,618,126	$ 88,506	$ 313,588	$ 455,467
AUT0148		1,036,476	$ 12,443,192	$ -	$ 288,984	$ 2,060,615
AUT0149		848,079	$ 109,389	$ -	$ 58,838	$ 74,413
AUT0151		482,911	$ 1,465,485	$ 95,774	$ 340,264	$ 453,142
AUT0161		555,680	$ 1,600,167	$ 101,254	$ 360,434	$ 487,008
AUT0168		329,758	$ 5,156,763	$ 39,196	$ 51,388	$ 746,399
AUT0171		1,189,016	$ 14,989,478	$ 120,512	$ 398,517	$ 2,412,170
AUT0174		1,341,997	$ 934,469	$ 1,387,449	$ 1,537,156	$ 282,755

Tabe 3-2: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 3	column 4	column 5	column 6	column 7
Facility ID	Intake ID	EPA Assumed Design Intake Flow, gpm (x_{epa})	Capital Cost	Baseline O&M Annual Cost	Post Construction O&M Annual Cost	Annualized Capital[3] + Net O&M Using EPA Design Intake Flow[2] (y_{epa})
AUT0175		258,008	$ 2,505,868	$ 134,658	$ 484,461	$ 706,582
AUT0176		1,652,395	$ 6,892,691	$ 425,370	$ 1,533,553	$ 2,089,548
AUT0183		118,504	$ 196,689	$ 7,303	$ 21,121	$ 41,823
AUT0185		810,911	$ 97,503	$ -	$ 56,756	$ 70,638
AUT0187		1,242,691	$ 257,332	$ -	$ 107,659	$ 144,297
AUT0190		511,950	$ 27,779,896	$ 616,589	$ 191,870	$ 3,530,513
AUT0191		692,335	$ 19,255,865	$ 184,161	$ 66,491	$ 2,623,932
AUT0192		359,686	$ 959,625	$ 71,963	$ 253,183	$ 317,849
AUT0193		1,006,084	$ 19,112,665	$ 90,728	$ 323,635	$ 2,954,121
AUT0196		230,120	$ 374,975	$ -	$ 10,672	$ 64,060
AUT0197		407,061	$ 4,773,876	$ 248,548	$ 891,410	$ 1,322,554
AUT0202		2,080,399	$ 106,025,028	$ 477,625	$ 769,048	$ 15,387,001
AUT0203		1,083,174	$ 4,847,332	$ 232,706	$ 851,244	$ 1,308,689
AUT0205		313,218	$ 720,557	$ 37,147	$ 127,449	$ 192,893
AUT0208		220,683	$ 3,140,556	$ 27,181	$ 51,205	$ 471,169
AUT0222		156,464	$ 299,274	$ -	$ 9,554	$ 52,164
AUT0227		82,468	$ 523,999	$ 30,107	$ 102,249	$ 146,748
AUT0228		147,594	$ 837,743	$ 41,023	$ 163,811	$ 242,064
AUT0229		483,349	$ 1,784,794	$ 87,496	$ 391,634	$ 558,253
AUT0238		376,148	$ 757,400	$ 51,856	$ 180,342	$ 236,323
AUT0242		1,113,045	$ 8,239,161	$ 291,327	$ 1,039,947	$ 1,921,691
AUT0244		49,980	$ 426,844	$ 22,868	$ 76,413	$ 114,318
AUT0245		491,302	$ 1,459,999	$ 50,879	$ 61,192	$ 218,185
AUT0254		145,838	$ 353,928	$ 22,339	$ 74,527	$ 102,580
AUT0255		194,919	$ 258,805	$ -	$ 10,232	$ 47,080
AUT0261		201,229	$ 943,433	$ 57,335	$ 230,290	$ 307,278
AUT0264		840,000	$ 21,384,690	$ 1,502,211	$ 185,672	$ 1,728,160
AUT0266		653,994	$ 139,380	$ 307,951	$ 351,075	$ 62,969
AUT0268		712,677	$ 2,998,753	$ 114,173	$ 417,470	$ 730,253
AUT0273		173,689	$ 994,534	$ 52,039	$ 208,703	$ 298,263
AUT0277		88,831	$ 1,192,106	$ 45,779	$ 51,021	$ 174,971
AUT0278		1,642,492	$ 6,410,550	$ 771,895	$ 257,586	$ 398,409
AUT0284		728,495	$ 3,743,165	$ 208,370	$ 742,487	$ 1,067,059
AUT0292		556,596	$ 2,227,636	$ 99,379	$ 350,087	$ 567,874
AUT0295		359,098	$ 3,584,905	$ 53,365	$ 114,232	$ 571,276
AUT0297		184,293	$ 1,172,223	$ 63,592	$ 255,790	$ 359,096
AUT0298		897,819	$ 100,769	$ -	$ 61,625	$ 75,972
AUT0299		864,873	$ 9,012,107	$ 150,709	$ 127,282	$ 1,259,694
AUT0302		71,413	$ 91,562	$ 6,933	$ 19,813	$ 25,916
AUT0305		762,197	$ 42,822,242	$ 146,012	$ 281,593	$ 6,232,505
AUT0308		394,361	$ 3,381,768	$ 151,364	$ 77,961	$ 408,085
AUT0309		789,860	$ 81,433	$ -	$ 55,577	$ 67,171
AUT0314		1,039,315	$ 2,438,597	$ 134,759	$ 484,839	$ 697,281
AUT0319		468,117	$ 1,326,662	$ 88,025	$ 355,386	$ 456,248
AUT0321		669,493	$ 2,092,630	$ 88,910	$ 107,698	$ 316,732
AUT0331		178,562	$ 24,860	$ -	$ 21,328	$ 24,867

Tabe 3-2: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 3	column 4	column 5	column 6	column 7
Facility ID	Intake ID	EPA Assumed Design Intake Flow, gpm (x_{epa})	Capital Cost	Baseline O&M Annual Cost	Post Construction O&M Annual Cost	Annualized Capital[3] + Net O&M Using EPA Design Intake Flow[2] (y_{epa})
AUT0333		336,448	$ 786,807	$ 46,794	$ 162,104	$ 227,333
AUT0337		1,110,944	$ 131,046	$ -	$ 73,566	$ 92,224
AUT0341		405,256	$ 2,429,275	$ 115,249	$ 412,169	$ 642,794
AUT0345		610,223	$ 5,103,322	$ 267,506	$ 952,013	$ 1,411,106
AUT0349		2,429,925	$ 8,146,829	$ 424,696	$ 1,514,477	$ 2,249,706
AUT0351		301,024	$ 6,389,631	$ 42,269	$ 99,196	$ 966,667
AUT0358		210,439	$ 2,170,195	$ 117,833	$ 421,759	$ 612,913
AUT0361		433,165	$ 7,652,621	$ 59,105	$ 140,320	$ 1,170,775
AUT0362		312,830	$ 1,566,464	$ 51,821	$ 185,883	$ 357,091
AUT0364		505,137	$ 5,447,440	$ 170,196	$ 611,090	$ 1,216,487
AUT0365		140,093	$ 445,526	$ 29,331	$ 116,166	$ 150,268
AUT0368		83,406	$ 2,715,938	$ 146,752	$ 529,832	$ 769,768
AUT0370		322,374	$ 1,816,861	$ 79,915	$ 289,868	$ 468,633
AUT0379		351,933	$ 41,890	$ -	$ 31,041	$ 37,006
AUT0381		50,143	$ 960,912	$ 9,964	$ 22,083	$ 148,931
AUT0384		146,511	$ 66,229	$ 91,020	$ 104,211	$ 22,620
AUT0385		130,966	$ 1,823,217	$ 20,420	$ 25,983	$ 265,149
AUT0387		576,057	$ 5,283,933	$ 122,322	$ 496,655	$ 1,126,646
AUT0398		537,402	$ 6,842,592	$ 63,631	$ 75,697	$ 986,297
AUT0399		140,486	$ 232,496	$ -	$ 9,212	$ 42,314
AUT0401		613,529	$ 578,957	$ -	$ 72,110	$ 154,541
AUT0404		291,400	$ 4,124,975	$ 44,642	$ 51,995	$ 594,657
AUT0408		73,728	$ 900,969	$ 13,020	$ 49,057	$ 164,315
AUT0416		143,562	$ 41,835	$ 96,659	$ 112,954	$ 22,251
AUT0423		564,501	$ 29,714,518	$ 122,524	$ 248,148	$ 4,356,303
AUT0427		148,668	$ 291,697	$ -	$ 9,392	$ 50,923
AUT0431		143,775	$ 356,208	$ 20,913	$ 69,450	$ 99,253
AUT0434		400,472	$ 763,363	$ 40,353	$ 138,952	$ 207,284
AUT0435		183,306	$ 483,907	$ 27,166	$ 107,346	$ 149,077
AUT0441		108,296	$ 276,983	$ 17,492	$ 57,275	$ 79,220
AUT0446		278,043	$ 3,528,075	$ 28,547	$ 111,202	$ 584,973
AUT0449		487,640	$ 1,738,410	$ 110,263	$ 393,700	$ 530,948
AUT0472		239,620	$ 218,958	$ 453,683	$ 511,926	$ 89,417
AUT0476		233,631	$ 489,074	$ 27,565	$ 93,169	$ 135,237
AUT0483		1,146,722	$ 2,715,801	$ 112,654	$ 136,742	$ 410,757
AUT0489		211,629	$ 1,477,232	$ 84,570	$ 299,177	$ 424,931
AUT0490		405,350	$ 3,527,610	$ 73,321	$ 78,027	$ 506,958
AUT0493		257,137	$ 1,429,134	$ 51,159	$ 206,956	$ 359,274
AUT0496		603,432	$ 1,649,804	$ 57,304	$ 206,130	$ 383,721
AUT0499		45,374	$ 171,551	$ 9,346	$ 48,606	$ 63,685
AUT0501		346,213	$ 115,781	$ 205,027	$ 230,840	$ 42,297
AUT0513		1,296,772	$ 27,395,451	$ 170,929	$ 603,316	$ 4,332,883
AUT0517		98,553	$ 1,040,022	$ 20,976	$ 72,416	$ 199,516
AUT0518		193,413	$ 435,346	$ 28,467	$ 96,388	$ 129,905
AUT0522		237,692	$ 856,098	$ 40,165	$ 162,010	$ 243,734
AUT0523		608,373	$ 7,741,521	$ -	$ 189,045	$ 1,291,263

Tabe 3-2: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 3	column 4	column 5	column 6	column 7
Facility ID	Intake ID	EPA Assumed Design Intake Flow, gpm (x_{epa})	Capital Cost	Baseline O&M Annual Cost	Post Construction O&M Annual Cost	Annualized Capital[3] + Net O&M Using EPA Design Intake Flow[2] (y_{epa})
AUT0529		422,181	$ 3,402,665	$ 144,308	$ 530,442	$ 870,598
AUT0534		70,565	$ 230,241	$ 17,175	$ 56,150	$ 71,756
AUT0535		196,084	$ 3,706,283	$ 25,082	$ 66,100	$ 568,710
AUT0539		1,056,137	$ 13,978,398	$ 183,682	$ 342,369	$ 2,148,896
AUT0541		117,759	$ 3,346,437	$ 108,327	$ 37,393	$ 405,523
AUT0547		780,279	$ 9,747,498	$ 118,281	$ 129,393	$ 1,398,937
AUT0551		295,707	$ 823,114	$ 30,125	$ 35,820	$ 122,888
AUT0552		1,226,625	$ 133,029	$ -	$ 80,047	$ 98,987
AUT0553		71,128	$ 230,549	$ 10,379	$ 32,023	$ 54,468
AUT0554		429,991	$ 8,840,925	$ 249,963	$ 170,468	$ 1,179,253
AUT0557		37,500	$ 20,033	$ -	$ 19,881	$ 22,734
AUT0564		1,129,749	$ 14,903,816	$ 170,408	$ 396,749	$ 2,348,309
AUT0567		441,177	$ 5,817,871	$ 67,488	$ 77,963	$ 838,809
AUT0568		584,525	$ 2,308,321	$ 342,703	$ 382,141	$ 368,091
AUT0570		951,201	$ 4,021,857	$ 164,817	$ 591,048	$ 998,853
AUT0577		741,931	$ 10,647,710	$ 113,337	$ 129,884	$ 1,532,542
AUT0583		222,087	$ 2,210,305	$ 36,279	$ 51,245	$ 329,663
AUT0585		128,015	$ 1,561,382	$ 49,933	$ 54,853	$ 227,225
AUT0588		396,576	$ 1,788,685	$ 191,759	$ 66,639	$ 129,548
AUT0590		147,803	$ 315,803	$ 22,592	$ 75,430	$ 97,801
AUT0599		198,681	$ 3,040,887	$ 21,121	$ 104,455	$ 516,288
AUT0600		711,801	$ 1,717,012	$ 80,592	$ 284,636	$ 448,508
AUT0601		1,151,214	$ 541,482	$ 677,194	$ 742,753	$ 142,654
AUT0603		1,228,633	$ 684,562	$ 720,077	$ 802,140	$ 179,529
AUT0607		635,364	$ 9,044,216	$ 111,819	$ 226,342	$ 1,402,216
AUT0611		547,114	$ 3,195,898	$ 88,288	$ 320,973	$ 687,709
AUT0612		186,464	$ 6,614,075	$ -	$ 85,670	$ 1,027,365
AUT0613		493,923	$ 4,341,494	$ 155,354	$ 572,021	$ 1,034,798
AUT0617		2,292,812	$ 37,040,390	$ 1,403,836	$ 741,877	$ 4,611,760
AUT0619		159,600	$ 62,547	$ 98,454	$ 112,506	$ 22,957
AUT0620		551,528	$ 2,198,869	$ 264,319	$ 90,714	$ 139,464
AUT0621		391,137	$ 2,018,600	$ 70,658	$ 245,595	$ 462,340
AUT0623		73,622	$ 267,379	$ 13,006	$ 49,653	$ 74,715
AUT0625		562,255	$ 2,841,330	$ 104,168	$ 380,113	$ 680,487
AUT0630		569,211	$ 16,086,712	$ 94,881	$ 227,787	$ 2,423,292
AUT0631		480,721	$ 11,721,529	$ 77,934	$ 190,232	$ 1,781,179
AUT0635		72,550	$ 1,057,088	$ 50,149	$ 201,000	$ 301,357
AUT0638		201,395	$ 2,336,881	$ 50,154	$ 202,851	$ 485,416
AUT0639		479,860	$ 2,960,066	$ 143,531	$ 527,524	$ 805,439
DMU3244	1	22,222	$ 138,465	$ -	$ 27,927	$ 47,641
DMU3244	2	56,250	$ 163,334	$ -	$ 33,357	$ 56,612
DMU3310		41,319	$ 25,594	$ 8,793	$ 27,169	$ 22,020
DNU2003		156,944	$ 68,455	$ -	$ 30,711	$ 40,458
DNU2010		67,000	$ 1,010,938	$ 11,787	$ 23,430	$ 155,578
DNU2011		181,250	$ 2,707,585	$ 21,222	$ 102,473	$ 466,750
DNU2013		65,000	$ 588,369	$ -	$ 24,812	$ 108,583
DNU2014		42,798	$ 531,997	$ 64,365	$ 22,327	$ 33,707

Tabe 3-2: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 3	column 4	column 5	column 6	column 7
Facility ID	Intake ID	EPA Assumed Design Intake Flow, gpm (x_{epa})	Capital Cost	Baseline O&M Annual Cost	Post Construction O&M Annual Cost	Annualized Capital[3] + Net O&M Using EPA Design Intake Flow[2] (y_{epa})
DNU2017		38,194	$ 984,494	$ -	$ 13,803	$ 153,973
DNU2018		44,260	$ 446,336	$ 11,513	$ 13,633	$ 65,668
DNU2021		55,750	$ 292,158	$ 18,165	$ 59,671	$ 83,103
DNU2025		120,689	$ 7,720,257	$ -	$ 825,174	$ 1,924,365
DNU2032	Units 1 & 2	156,250	$ -	$ -	$ -	$ -
DNU2032	Unit 3	124,306	$ -	$ -	$ -	$ -
DNU2032	Unit 4	136,806	$ 143,049	$ -	$ 54,324	$ 74,691
DNU2038		41,667	$ 465,858	$ 50,489	$ 58,892	$ 74,730
DUT0062	1	72,917	$ 1,069,902	$ 8,527	$ 48,944	$ 192,747
DUT0062	2	156,250	$ 1,922,088	$ 14,312	$ 56,483	$ 315,834
DUT0576	5&6	50,000	$ 1,434,192	$ 51,770	$ 185,694	$ 338,121
DUT0576	7	43,056	$ 866,245	$ 29,000	$ 101,863	$ 196,197
DUT0576	CT	2,083	$ 202,358	$ -	$ 25,785	$ 54,596
DUT1002	Screenhouse 1	685,833	$ 166,652	$ 322,571	$ 367,337	$ 68,493
DUT1002	Screenhouse 2	685,833	$ 166,652	$ 322,571	$ 367,337	$ 68,493
DUT1003		38,500	$ 703,237	$ 15,912	$ 20,989	$ 105,202
DUT1006	Unit 1/2	173,611	$ 1,286,341	$ 54,154	$ 153,027	$ 282,018
DUT1006	Unit 3/4	20,833	$ 281,263	$ 12,914	$ 39,309	$ 66,440
DUT1007		242,778	$ 680,059	$ 32,861	$ 39,165	$ 103,129
DUT1008		60,000	$ 1,016,367	$ 26,935	$ 107,846	$ 225,619
DUT1011		283,611	$ 1,350,484	$ 76,112	$ 267,481	$ 383,648
DUT1012		173,611	$ 522,205	$ 29,576	$ 100,351	$ 145,125
DUT1014		87,000	$ 920,321	$ 40,859	$ 163,140	$ 253,315
DUT1022		2,200,000	$ 8,268,801	$ 291,801	$ 1,051,593	$ 1,937,083
DUT1023	CWS #535	478,444	$ 28,961,166	$ 360,609	$ 274,535	$ 4,037,344
DUT1023	DWS #536	520,000	$ 39,708,776	$ 97,288	$ 361,137	$ 5,917,486
DUT1029	CRS	638,000	$ 14,391,478	$ 63,709	$ 254,538	$ 2,239,852
DUT1029	CR Nuc	680,000	$ 6,740,847	$ 162,470	$ 659,152	$ 1,456,426
DUT1029	CRN	68,000	$ 649,893	$ 13,914	$ 16,340	$ 94,956
DUT1029	HCT	735,000	$ 4,654,560	$ 159,675	$ 194,358	$ 697,388
DUT1031	1	59,000	$ 808,777	$ 17,797	$ 22,826	$ 120,181
DUT1031	2	140,000	$ 1,524,044	$ 24,132	$ 26,017	$ 218,874
DUT1033		240,000	$ 1,076,251	$ 43,293	$ 55,502	$ 165,443
DUT1034		1,231,944	$ 4,990,608	$ 202,923	$ 820,337	$ 1,327,964
DUT1036		444,000	$ 753,297	$ 41,568	$ 141,630	$ 207,314
DUT1038		65,972	$ 213,848	$ 12,804	$ 38,918	$ 56,561
DUT1041		188,958	$ 433,167	$ 27,973	$ 94,625	$ 128,325
DUT1043		280,556	$ 36,345	$ -	$ 27,042	$ 32,217
DUT1044		756,944	$ 76,726	$ -	$ 53,732	$ 64,656
DUT1047		614,306	$ 16,998,704	$ 151,032	$ 103,667	$ 2,372,868
DUT1048	HI-1	256,944	$ 1,766,372	$ 113,534	$ 405,813	$ 543,770
DUT1048	HI-2	170,139	$ 473,836	$ 33,127	$ 113,050	$ 147,387
DUT1050		2,104,167	$ 407,068	$ -	$ 171,852	$ 229,809
DUT1051		374,000	$ 1,027,013	$ 55,468	$ 193,382	$ 284,137
DUT1057		340,000	$ 2,844,898	$ 35,159	$ 51,102	$ 420,993
DUT1062		670,139	$ 67,658	$ -	$ 48,869	$ 58,502

Tabe 3-2: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 3	column 4	column 5	column 6	column 7
Facility ID	Intake ID	EPA Assumed Design Intake Flow, gpm (x_{epa})	Capital Cost	Baseline O&M Annual Cost	Post Construction O&M Annual Cost	Annualized Capital[3] + Net O&M Using EPA Design Intake Flow[2] (y_{epa})
DUT1066		1,712,000	$ 32,777,974	$ 260,695	$ 678,771	$ 5,084,922
DUT1067	1	63,611	$ -	$ -	$ -	$ -
DUT1067	2	31,667	$ -	$ -	$ -	$ -
DUT1067	3	69,653	$ 23,159	$ -	$ 20,564	$ 23,862
DUT1068		91,528	$ 360,536	$ 56,351	$ 20,060	$ 15,042
DUT1072		366,597	$ 691,381	$ 40,319	$ 137,184	$ 195,303
DUT1084		264,583	$ 835,764	$ 54,494	$ 189,863	$ 254,363
DUT1085		297,000	$ 2,410,696	$ 159,608	$ 619,834	$ 803,455
DUT1086	Unit 1	57,292	$ 667,197	$ 29,048	$ 122,691	$ 188,637
DUT1086	Unit 2	57,292	$ 667,197	$ 29,048	$ 122,691	$ 188,637
DUT1088	#4	49,280	$ 865,324	$ 11,129	$ 22,007	$ 134,081
DUT1088	#5	99,458	$ 1,438,399	$ 12,058	$ 25,232	$ 217,970
DUT1093		307,760	$ 9,456,466	$ -	$ 33,762	$ 1,380,150
DUT1097		106,007	$ 2,349,646	$ -	$ 242,606	$ 577,143
DUT1098		71,528	$ 507,025	$ 29,461	$ 99,942	$ 142,669
DUT1100	Units 1 & 2	188,000	$ -	$ -	$ -	$ -
DUT1100	Units 3 & 4	188,000	$ 136,878	$ -	$ 50,573	$ 70,062
DUT1103	Unit 1 Screenhouse	118,000	$ -	$ -	$ -	$ -
DUT1103	Unit 2 Screenhouse	250,000	$ 47,060	$ -	$ 31,941	$ 38,642
DUT1103	Hvdc Lake Intake	1,200	$ 34,615	$ -	$ 4,734	$ 9,662
DUT1103	Hvdc Separator Dike	1,200	$ 34,615	$ -	$ 4,734	$ 9,662
DUT1103	River Intake	7,800	$ 75,587	$ 5,734	$ 15,570	$ 20,597
DUT1109		58,333	$ 873,553	$ 32,385	$ 130,170	$ 222,159
DUT1111	Unit 1&2	199,716	$ 764,700	$ 99,547	$ 37,851	$ 47,181
DUT1111	Unit 3	189,842	$ 717,221	$ 93,277	$ 35,552	$ 44,391
DUT1112		193,750	$ 501,403	$ 28,510	$ 96,543	$ 139,421
DUT1113	System 27	1,125,000	$ 6,518,329	$ 281,013	$ 1,001,831	$ 1,648,882
DUT1113	System 67	44,028	$ 181,599	$ -	$ 8,508	$ 34,364
DUT1116		355,556	$ 2,886,459	$ 69,804	$ 84,921	$ 426,084
DUT1118		667,361	$ 140,959	$ -	$ 64,789	$ 84,858
DUT1122		120,000	$ 23,134	$ -	$ 18,047	$ 21,341
DUT1123	6	111,806	$ 4,071,741	$ 15,536	$ 39,240	$ 603,428
DUT1123	7	256,250	$ 5,809,773	$ -	$ 431,082	$ 1,258,263
DUT1123	8	220,139	$ 5,590,610	$ 27,185	$ 73,721	$ 842,513
DUT1132		1,896,000	$ 3,995,072	$ 197,552	$ 927,311	$ 1,298,568
DUT1133		213,889	$ 1,180,537	$ 44,631	$ 57,260	$ 180,711
DUT1138		77,083	$ 264,532	$ 12,475	$ 37,753	$ 62,942
DUT1140	Mc2-4	131,250	$ 334,100	$ 20,512	$ 66,264	$ 93,320
DUT1140	Mc5&6	383,958	$ 1,450,787	$ 82,444	$ 290,867	$ 414,982
DUT1145		178,472	$ 2,702,979	$ 38,035	$ 57,101	$ 403,909
DUT1146		181,944	$ 325,271	$ 276,184	$ 309,256	$ 79,383
DUT1152		399,306	$ 10,606,982	$ 355,225	$ 1,321,682	$ 2,476,653
DUT1156		496,000	$ 16,234,946	$ 67,033	$ 77,047	$ 2,321,504
DUT1157	6	110,000	$ 1,262,753	$ 47,827	$ 25,593	$ 157,553
DUT1157	7	5,833	$ 305,286	$ 13,438	$ 17,201	$ 47,229
DUT1165	1	480,000	$ 9,356,403	$ 220,447	$ 189,951	$ 1,301,645

Tabe 3-2: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 3	column 4	column 5	column 6	column 7
Facility ID	Intake ID	EPA Assumed Design Intake Flow, gpm (x_{epa})	Capital Cost	Baseline O&M Annual Cost	Post Construction O&M Annual Cost	Annualized Capital[3] + Net O&M Using EPA Design Intake Flow[2] (y_{epa})
DUT1165	2	489,233	$ -	$ -	$ -	$ -
DUT1169		620,000	$ 14,855,719	$ 47,990	$ 185,073	$ 2,252,203
DUT1173		37,986	$ 312,285	$ 18,521	$ 72,119	$ 98,061
DUT1179		390,278	$ 1,204,485	$ 74,177	$ 261,241	$ 358,556
DUT1185		225,000	$ 3,496,693	$ 21,560	$ 51,324	$ 527,614
DUT1186	Unit 4	62,000	$ 577,654	$ 26,371	$ 88,907	$ 144,780
DUT1186	Unit 5	62,000	$ 577,654	$ 26,371	$ 88,907	$ 144,780
DUT1187	Mt 2&3	147,014	$ -	$ -	$ -	$ -
DUT1187	Mt 6-8	500,000	$ 78,370	$ -	$ 47,573	$ 58,732
DUT1189	Unit 6 & 8	72,222	$ -	$ -	$ -	$ -
DUT1189	Unit 7	80,000	$ 22,427	$ -	$ 19,852	$ 23,045
DUT1198		279,511	$ 5,198,159	$ 27,451	$ 92,443	$ 805,093
DUT1202	Power Plant	36,000	$ 1,154,817	$ -	$ 13,668	$ 178,088
DUT1202	Filtration Plant	30,000	$ 987,137	$ -	$ 13,284	$ 153,830
DUT1206	1	85,972	$ 53,440	$ 56,705	$ 65,852	$ 16,756
DUT1206	2	85,000	$ 59,054	$ 56,155	$ 65,236	$ 17,489
DUT1206	3	120,972	$ 87,045	$ 76,530	$ 88,027	$ 23,890
DUT1209	Plant a	640,000	$ 2,227,053	$ 89,172	$ 116,036	$ 343,947
DUT1209	Plant B	515,972	$ 10,503,729	$ 51,204	$ 184,394	$ 1,628,685
DUT1211		1,666,667	$ 32,926,766	$ 3,240,832	$ 1,072,136	$ 2,519,335
DUT1212		687,500	$ 2,000,922	$ 85,020	$ 302,122	$ 501,987
DUT1214		51,944	$ 754,488	$ 34,900	$ 22,241	$ 94,763
DUT1217	Unit 1	-	$ -	$ -	$ -	$ -
DUT1217	Unit 6-8	104,861	$ 848,612	$ -	$ 16,547	$ 137,371
DUT1217	Unit 4	-	$ -	$ -	$ -	$ -
DUT1219		550,000	$ 2,862,608	$ 108,307	$ 438,079	$ 737,343
DUT1223	1	142,000	$ 1,422,632	$ 8,898	$ 55,779	$ 249,432
DUT1223	2	224,800	$ 2,121,274	$ 22,284	$ 56,502	$ 336,239
DUT1227	1 & 2	130,000	$ 373,205	$ 21,493	$ 71,516	$ 103,159
DUT1227	3	185,000	$ 512,326	$ 29,084	$ 98,594	$ 142,454
DUT1229		73,000	$ 30,638	$ 82,612	$ 96,918	$ 18,668
DUT1238	A	676,000	$ 386,447	$ 531,800	$ 688,788	$ 212,010
DUT1238	B	334,000	$ 344,428	$ 525,715	$ 662,610	$ 185,934
DUT1248		452,083	$ 49,114	$ -	$ 36,652	$ 43,645
DUT1249		43,900	$ 10,765	$ -	$ 13,783	$ 15,316
DUT1250		360,000	$ 12,788,752	$ 160,063	$ 151,944	$ 1,812,711
DUT1252		112,000	$ 157,353	$ 10,988	$ 32,494	$ 43,910
DUT1258	Screen House No.1	287,083	$ 6,665,603	$ 171,249	$ 116,490	$ 894,273
DUT1258	Screen House No.2	422,708	$ 9,009,434	$ 248,577	$ 168,448	$ 1,202,611
DUT1258	Screen House No.3	243,056	$ 4,842,849	$ 108,025	$ 73,278	$ 654,766
DUT1259		71,181	$ 2,706,303	$ 20,742	$ 26,203	$ 390,778
DUT1261	U12	79,000	$ 49,889	$ 119,643	$ 139,137	$ 26,598
DUT1261	U34	139,750	$ 1,735,631	$ 101,580	$ 26,018	$ 171,552
DUT1265		70,000	$ 495,281	$ 35,987	$ 143,288	$ 177,818
DUT1268		2,400,000	$ 20,911,797	$ 1,793,928	$ 623,613	$ 1,807,054
DUT1269		456,000	$ 3,012,280	$ 107,765	$ 130,761	$ 451,877

Tabe 3-2: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 3	column 4	column 5	column 6	column 7
Facility ID	Intake ID	EPA Assumed Design Intake Flow, gpm (x_{epa})	Capital Cost	Baseline O&M Annual Cost	Post Construction O&M Annual Cost	Annualized Capital[3] + Net O&M Using EPA Design Intake Flow[2] (y_{epa})
DUT1270		89,583	$ 18,084	$ -	$ 16,343	$ 18,918
DUT1271		186,000	$ 14,970,016	$ 30,165	$ 49,913	$ 2,151,142
DUT1272	Mo1 & 2	713,889	$ 1,238,695	$ 76,910	$ 270,425	$ 369,877
DUT1272	Mo3	528,472	$ 849,029	$ 53,826	$ 185,965	$ 253,021
DUT1273		444,444	$ 2,752,775	$ 164,719	$ 582,187	$ 809,401
DUT1274		330,556	$ 1,564,234	$ 62,476	$ 225,250	$ 385,486
DUT1275		1,992,500	$ 6,739,793	$ -	$ 355,766	$ 1,315,361
DUT1276		62,500	$ 412,277	$ 23,754	$ 26,574	$ 61,518
DUT1278		559,722	$ 4,962,033	$ 193,479	$ 688,069	$ 1,201,071
		Facilities Receiving No EPA Technology Upgrade Costs				
AUT0010		n/a	$ -	$ -	$ -	$ -
AUT0013		n/a	$ -	$ -	$ -	$ -
AUT0018		n/a	$ -	$ -	$ -	$ -
AUT0022		n/a	$ -	$ -	$ -	$ -
AUT0033		n/a	$ -	$ -	$ -	$ -
AUT0036		n/a	$ -	$ -	$ -	$ -
AUT0041		n/a	$ -	$ -	$ -	$ -
AUT0047		n/a	$ -	$ -	$ -	$ -
AUT0050		n/a	$ -	$ -	$ -	$ -
AUT0054		n/a	$ -	$ -	$ -	$ -
AUT0067		n/a	$ -	$ -	$ -	$ -
AUT0068		n/a	$ -	$ -	$ -	$ -
AUT0071		n/a	$ -	$ -	$ -	$ -
AUT0072		n/a	$ -	$ -	$ -	$ -
AUT0073		n/a	$ -	$ -	$ -	$ -
AUT0077		n/a	$ -	$ -	$ -	$ -
AUT0079		n/a	$ -	$ -	$ -	$ -
AUT0080		n/a	$ -	$ -	$ -	$ -
AUT0083		n/a	$ -	$ -	$ -	$ -
AUT0087		n/a	$ -	$ -	$ -	$ -
AUT0091		n/a	$ -	$ -	$ -	$ -
AUT0093		n/a	$ -	$ -	$ -	$ -
AUT0097		n/a	$ -	$ -	$ -	$ -
AUT0101		n/a	$ -	$ -	$ -	$ -
AUT0104		n/a	$ -	$ -	$ -	$ -
AUT0111		n/a	$ -	$ -	$ -	$ -
AUT0114		n/a	$ -	$ -	$ -	$ -
AUT0125		n/a	$ -	$ -	$ -	$ -
AUT0126		n/a	$ -	$ -	$ -	$ -
AUT0129		n/a	$ -	$ -	$ -	$ -
AUT0152		n/a	$ -	$ -	$ -	$ -
AUT0156		n/a	$ -	$ -	$ -	$ -
AUT0157		n/a	$ -	$ -	$ -	$ -
AUT0160		n/a	$ -	$ -	$ -	$ -

Tabe 3-2: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 3	column 4	column 5	column 6	column 7
Facility ID	Intake ID	EPA Assumed Design Intake Flow, gpm (x_{epa})	Capital Cost	Baseline O&M Annual Cost	Post Construction O&M Annual Cost	Annualized Capital[3] + Net O&M Using EPA Design Intake Flow[2] (y_{epa})
AUT0163		n/a	$ -	$ -	$ -	$ -
AUT0170		n/a	$ -	$ -	$ -	$ -
AUT0173		n/a	$ -	$ -	$ -	$ -
AUT0178		n/a	$ -	$ -	$ -	$ -
AUT0181		n/a	$ -	$ -	$ -	$ -
AUT0182		n/a	$ -	$ -	$ -	$ -
AUT0199		n/a	$ -	$ -	$ -	$ -
AUT0201		n/a	$ -	$ -	$ -	$ -
AUT0215		n/a	$ -	$ -	$ -	$ -
AUT0216		n/a	$ -	$ -	$ -	$ -
AUT0221		n/a	$ -	$ -	$ -	$ -
AUT0226		n/a	$ -	$ -	$ -	$ -
AUT0230		n/a	$ -	$ -	$ -	$ -
AUT0232		n/a	$ -	$ -	$ -	$ -
AUT0235		n/a	$ -	$ -	$ -	$ -
AUT0240		n/a	$ -	$ -	$ -	$ -
AUT0241		n/a	$ -	$ -	$ -	$ -
AUT0246		n/a	$ -	$ -	$ -	$ -
AUT0248		n/a	$ -	$ -	$ -	$ -
AUT0257		n/a	$ -	$ -	$ -	$ -
AUT0260		n/a	$ -	$ -	$ -	$ -
AUT0270		n/a	$ -	$ -	$ -	$ -
AUT0275		n/a	$ -	$ -	$ -	$ -
AUT0276		n/a	$ -	$ -	$ -	$ -
AUT0285		n/a	$ -	$ -	$ -	$ -
AUT0286		n/a	$ -	$ -	$ -	$ -
AUT0287		n/a	$ -	$ -	$ -	$ -
AUT0296		n/a	$ -	$ -	$ -	$ -
AUT0300		n/a	$ -	$ -	$ -	$ -
AUT0304		n/a	$ -	$ -	$ -	$ -
AUT0307		n/a	$ -	$ -	$ -	$ -
AUT0310		n/a	$ -	$ -	$ -	$ -
AUT0315		n/a	$ -	$ -	$ -	$ -
AUT0343		n/a	$ -	$ -	$ -	$ -
AUT0344		n/a	$ -	$ -	$ -	$ -
AUT0350		n/a	$ -	$ -	$ -	$ -
AUT0355		n/a	$ -	$ -	$ -	$ -
AUT0356		n/a	$ -	$ -	$ -	$ -
AUT0359		n/a	$ -	$ -	$ -	$ -
AUT0363		n/a	$ -	$ -	$ -	$ -
AUT0373		n/a	$ -	$ -	$ -	$ -
AUT0380		n/a	$ -	$ -	$ -	$ -
AUT0388		n/a	$ -	$ -	$ -	$ -

Tabe 3-2: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 3	column 4	column 5	column 6	column 7
Facility ID	Intake ID	EPA Assumed Design Intake Flow, gpm (x_{epa})	Capital Cost	Baseline O&M Annual Cost	Post Construction O&M Annual Cost	Annualized Capital[3] + Net O&M Using EPA Design Intake Flow[2] (y_{epa})
AUT0390		n/a	$ -	$ -	$ -	$ -
AUT0394		n/a	$ -	$ -	$ -	$ -
AUT0396		n/a	$ -	$ -	$ -	$ -
AUT0397		n/a	$ -	$ -	$ -	$ -
AUT0403		n/a	$ -	$ -	$ -	$ -
AUT0405		n/a	$ -	$ -	$ -	$ -
AUT0406		n/a	$ -	$ -	$ -	$ -
AUT0411		n/a	$ -	$ -	$ -	$ -
AUT0415		n/a	$ -	$ -	$ -	$ -
AUT0419		n/a	$ -	$ -	$ -	$ -
AUT0424		n/a	$ -	$ -	$ -	$ -
AUT0433		n/a	$ -	$ -	$ -	$ -
AUT0440		n/a	$ -	$ -	$ -	$ -
AUT0443		n/a	$ -	$ -	$ -	$ -
AUT0444		n/a	$ -	$ -	$ -	$ -
AUT0453		n/a	$ -	$ -	$ -	$ -
AUT0455		n/a	$ -	$ -	$ -	$ -
AUT0459		n/a	$ -	$ -	$ -	$ -
AUT0462		n/a	$ -	$ -	$ -	$ -
AUT0463		n/a	$ -	$ -	$ -	$ -
AUT0467		n/a	$ -	$ -	$ -	$ -
AUT0473		n/a	$ -	$ -	$ -	$ -
AUT0477		n/a	$ -	$ -	$ -	$ -
AUT0478		n/a	$ -	$ -	$ -	$ -
AUT0481		n/a	$ -	$ -	$ -	$ -
AUT0482		n/a	$ -	$ -	$ -	$ -
AUT0492		n/a	$ -	$ -	$ -	$ -
AUT0500		n/a	$ -	$ -	$ -	$ -
AUT0507		n/a	$ -	$ -	$ -	$ -
AUT0512		n/a	$ -	$ -	$ -	$ -
AUT0515		n/a	$ -	$ -	$ -	$ -
AUT0521		n/a	$ -	$ -	$ -	$ -
AUT0531		n/a	$ -	$ -	$ -	$ -
AUT0536		n/a	$ -	$ -	$ -	$ -
AUT0537		n/a	$ -	$ -	$ -	$ -
AUT0538		n/a	$ -	$ -	$ -	$ -
AUT0540		n/a	$ -	$ -	$ -	$ -
AUT0544		n/a	$ -	$ -	$ -	$ -
AUT0546		n/a	$ -	$ -	$ -	$ -
AUT0555		n/a	$ -	$ -	$ -	$ -
AUT0559		n/a	$ -	$ -	$ -	$ -
AUT0561		n/a	$ -	$ -	$ -	$ -
AUT0571		n/a	$ -	$ -	$ -	$ -
AUT0573		n/a	$ -	$ -	$ -	$ -

Tabe 3-2: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 3	column 4	column 5	column 6	column 7
Facility ID	Intake ID	EPA Assumed Design Intake Flow, gpm (x_{epa})	Capital Cost	Baseline O&M Annual Cost	Post Construction O&M Annual Cost	Annualized Capital[3] + Net O&M Using EPA Design Intake Flow[2] (y_{epa})
AUT0575		n/a	$ -	$ -	$ -	$ -
AUT0580		n/a	$ -	$ -	$ -	$ -
AUT0582		n/a	$ -	$ -	$ -	$ -
AUT0595		n/a	$ -	$ -	$ -	$ -
AUT0602		n/a	$ -	$ -	$ -	$ -
AUT0604		n/a	$ -	$ -	$ -	$ -
AUT0606		n/a	$ -	$ -	$ -	$ -
AUT0608		n/a	$ -	$ -	$ -	$ -
AUT0618		n/a	$ -	$ -	$ -	$ -
AUT0636		n/a	$ -	$ -	$ -	$ -
AUT0637		n/a	$ -	$ -	$ -	$ -
AUT0755		n/a	$ -	$ -	$ -	$ -
DNU2002		n/a	$ -	$ -	$ -	$ -
DNU2005		n/a	$ -	$ -	$ -	$ -
DNU2006		n/a	$ -	$ -	$ -	$ -
DNU2015		n/a	$ -	$ -	$ -	$ -
DNU2031		n/a	$ -	$ -	$ -	$ -
DNU2047		n/a	$ -	$ -	$ -	$ -
DUT1010		n/a	$ -	$ -	$ -	$ -
DUT1013		n/a	$ -	$ -	$ -	$ -
DUT1021		n/a	$ -	$ -	$ -	$ -
DUT1026		n/a	$ -	$ -	$ -	$ -
DUT1027		n/a	$ -	$ -	$ -	$ -
DUT1032		n/a	$ -	$ -	$ -	$ -
DUT1039		n/a	$ -	$ -	$ -	$ -
DUT1046		n/a	$ -	$ -	$ -	$ -
DUT1049		n/a	$ -	$ -	$ -	$ -
DUT1053		n/a	$ -	$ -	$ -	$ -
DUT1056		n/a	$ -	$ -	$ -	$ -
DUT1070		n/a	$ -	$ -	$ -	$ -
DUT1071		n/a	$ -	$ -	$ -	$ -
DUT1078		n/a	$ -	$ -	$ -	$ -
DUT1081		n/a	$ -	$ -	$ -	$ -
DUT1087		n/a	$ -	$ -	$ -	$ -
DUT1092		n/a	$ -	$ -	$ -	$ -
DUT1104		n/a	$ -	$ -	$ -	$ -
DUT1105		n/a	$ -	$ -	$ -	$ -
DUT1106		n/a	$ -	$ -	$ -	$ -
DUT1117		n/a	$ -	$ -	$ -	$ -
DUT1120		n/a	$ -	$ -	$ -	$ -
DUT1129		n/a	$ -	$ -	$ -	$ -
DUT1130		n/a	$ -	$ -	$ -	$ -
DUT1142		n/a	$ -	$ -	$ -	$ -

Tabe 3-2: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 3	column 4	column 5	column 6	column 7
Facility ID	Intake ID	EPA Assumed Design Intake Flow, gpm (x_{epa})	Capital Cost	Baseline O&M Annual Cost	Post Construction O&M Annual Cost	Annualized Capital[3] + Net O&M Using EPA Design Intake Flow[2] (y_{epa})
DUT1143		n/a	$ -	$ -	$ -	$ -
DUT1148		n/a	$ -	$ -	$ -	$ -
DUT1149		n/a	$ -	$ -	$ -	$ -
DUT1153		n/a	$ -	$ -	$ -	$ -
DUT1154		n/a	$ -	$ -	$ -	$ -
DUT1155		n/a	$ -	$ -	$ -	$ -
DUT1161		n/a	$ -	$ -	$ -	$ -
DUT1167		n/a	$ -	$ -	$ -	$ -
DUT1170		n/a	$ -	$ -	$ -	$ -
DUT1172		n/a	$ -	$ -	$ -	$ -
DUT1174		n/a	$ -	$ -	$ -	$ -
DUT1175		n/a	$ -	$ -	$ -	$ -
DUT1176		n/a	$ -	$ -	$ -	$ -
DUT1177		n/a	$ -	$ -	$ -	$ -
DUT1183		n/a	$ -	$ -	$ -	$ -
DUT1188		n/a	$ -	$ -	$ -	$ -
DUT1191		n/a	$ -	$ -	$ -	$ -
DUT1192		n/a	$ -	$ -	$ -	$ -
DUT1194		n/a	$ -	$ -	$ -	$ -
DUT1199		n/a	$ -	$ -	$ -	$ -
DUT1201		n/a	$ -	$ -	$ -	$ -
DUT1213		n/a	$ -	$ -	$ -	$ -
DUT1220		n/a	$ -	$ -	$ -	$ -
DUT1222		n/a	$ -	$ -	$ -	$ -
DUT1224		n/a	$ -	$ -	$ -	$ -
DUT1225		n/a	$ -	$ -	$ -	$ -
DUT1228		n/a	$ -	$ -	$ -	$ -
DUT1233		n/a	$ -	$ -	$ -	$ -
DUT1234		n/a	$ -	$ -	$ -	$ -
DUT1235		n/a	$ -	$ -	$ -	$ -
DUT1239		n/a	$ -	$ -	$ -	$ -
DUT1243		n/a	$ -	$ -	$ -	$ -
DUT1254		n/a	$ -	$ -	$ -	$ -
DUT1257		n/a	$ -	$ -	$ -	$ -
DUT1262		n/a	$ -	$ -	$ -	$ -

Tabe 3-2, continued: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 8	column 9	column 10	column 11	column 12	column 13
Facility ID	Intake ID	Net Revenue Losses from Net Construction Downtime	Pilot Study Costs	Annualized Downtime and Pilot Study Costs[2,4]	Performance Standards on which EPA Cost Estimates are Based	EPA Modeled Technology	Design Flow Adjustment Slope (m)[1]
AUT0001		$ -	$ -	$ -	I&E	2	0.8639
AUT0002		$ 6,650,155	$ 290,459	$ 559,082	I&E	12	3.6581
AUT0004		$ -	$ -	$ -	I	1	1.1604
AUT0011		$ -	$ -	$ -	I	1	1.1604
AUT0012		$ 110,716,357	$ 4,933,578	$ 9,315,779	I&E	12	3.6581
AUT0014		$ -	$ 276,073	$ 22,022	I&E	11	0.7352
AUT0015		$ -	$ -	$ -	I	5	0.1286
AUT0016		$ -	$ -	$ -	I	5	0.1286
AUT0019		$ -	$ -	$ -	I	1	1.1604
AUT0020		$ -	$ 153,333	$ 12,231	I&E	11	0.7352
AUT0021		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
AUT0024		$ -	$ -	$ -	I	5	0.1286
AUT0027		$ -	$ -	$ -	I	1	1.1604
AUT0044		$ -	$ -	$ -	I	5	0.1286
AUT0049		$ -	$ 204,745	$ 16,332	I&E	2	0.8639
AUT0051		$ -	$ -	$ -	I	4	2.5787
AUT0053		$ -	$ -	$ -	I&E	2	0.8639
AUT0057		$ -	$ -	$ -	I	1	1.1604
AUT0058		$ 7,092,806	$ 867,072	$ 640,749	I&E	12	3.6581
AUT0064		$ -	$ -	$ -	I	1	1.1604
AUT0066		$ 23,985,660	$ 150,000	$ 1,944,883	I&E	4	2.5787
AUT0078		$ -	$ 574,212	$ 45,804	I&E	2	0.8639
AUT0084		$ -	$ 150,331	$ 11,992	I&E	2	0.8639
AUT0085		$ 52,842,026	$ 2,351,844	$ 4,445,953	I&E	4	2.5787
AUT0092		$ -	$ -	$ -	I	5	0.1286
AUT0095		$ -	$ -	$ -	I&E	2	0.8639
AUT0106		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
AUT0110		$ 5,297,741	$ 651,167	$ 478,869	I&E	12	3.6581
AUT0120		$ -	$ 210,724	$ 16,809	I&E	2	0.8639
AUT0123		$ -	$ -	$ -	I	1	1.1604
AUT0127		$ -	$ -	$ -	I	1	1.1604
AUT0130		$ -	$ 821,067	$ 65,496	I&E	2	0.8639
AUT0131		$ -	$ -	$ -	I	1	1.1604
AUT0134		$ 238,035	$ -	$ 19,182	I	3	3.4562
AUT0137		$ -	$ 193,608	$ 15,444	I&E	2	0.8639
AUT0139		$ -	$ -	$ -	I	5	0.1286
AUT0142		$ 3,421,735	$ 955,845	$ 351,992	I&E	14	6.9559
AUT0143		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
AUT0146		$ -	$ -	$ -	I	1	1.1604
AUT0148		$ -	$ -	$ -	I&E	9	5.973
AUT0149		$ -	$ -	$ -	I	5	0.1286
AUT0151		$ -	$ -	$ -	I	1	1.1604
AUT0161		$ -	$ -	$ -	I	1	1.1604
AUT0168		$ 492,266	$ 260,480	$ 60,448	I&E	12	3.6581
AUT0171		$ 15,890,363	$ -	$ 1,280,547	I&E	7	2.504
AUT0174		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
AUT0175		$ -	$ -	$ -	I	1	1.1604
AUT0176		$ -	$ -	$ -	I	1	1.1604
AUT0183		$ -	$ -	$ -	I	1	1.1604
AUT0185		$ -	$ -	$ -	I	5	0.1286

Tabe 3-2, continued: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 8	column 9	column 10	column 11	column 12	column 13
Facility ID	Intake ID	Net Revenue Losses from Net Construction Downtime	Pilot Study Costs	Annualized Downtime and Pilot Study Costs[2,4]	Performance Standards on which EPA Cost Estimates are Based	EPA Modeled Technology	Design Flow Adjustment Slope (m)[1]
AUT0187		$ -	$ -	$ -	I	5	0.1286
AUT0190		$ -	$ -	$ -	I&E	9	5.973
AUT0191		$ -	$ -	$ -	I&E	9	5.973
AUT0192		$ -	$ -	$ -	I	1	1.1604
AUT0193		$ 3,278,888	$ -	$ 264,234	I	3	3.4562
AUT0196		$ -	$ -	$ -	I	8	0.3315
AUT0197		$ -	$ -	$ -	I	1	1.1604
AUT0202		$ -	$ -	$ -	I&E	9	5.973
AUT0203		$ -	$ -	$ -	I	1	1.1604
AUT0205		$ -	$ -	$ -	I&E	1	1.1604
AUT0208		$ 3,544,915	$ -	$ 285,672	I&E	4	2.5787
AUT0222		$ -	$ -	$ -	I	8	0.3315
AUT0227		$ -	$ -	$ -	I	1	1.1604
AUT0228		$ -	$ -	$ -	I&E	2	0.8639
AUT0229		$ -	$ -	$ -	I&E	2	0.8639
AUT0238		$ -	$ -	$ -	I	1	1.1604
AUT0242		$ -	$ -	$ -	I	1	1.1604
AUT0244		$ -	$ -	$ -	I	1	1.1604
AUT0245		$ -	$ 150,000	$ 11,965	I&E	11	0.7352
AUT0254		$ -	$ -	$ -	I	1	1.1604
AUT0255		$ -	$ -	$ -	I	8	0.3315
AUT0261		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
AUT0264		$ 43,525,468	$ 2,160,384	$ 3,679,892	I&E	12	3.6581
AUT0266		$ -	$ -	$ -	I&E	2	0.8639
AUT0268		$ -	$ -	$ -	I	1	1.1604
AUT0273		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
AUT0277		$ 186,802	$ -	$ 15,054	I&E	4	2.5787
AUT0278		$ -	$ 647,624	$ 51,660	I&E	11	0.7352
AUT0284		$ -	$ -	$ -	I	1	1.1604
AUT0292		$ -	$ -	$ -	I	1	1.1604
AUT0295		$ 5,005,800	$ -	$ 403,399	I&E	4	2.5787
AUT0297		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
AUT0298		$ -	$ -	$ -	I	5	0.1286
AUT0299		$ 15,622,548	$ 227,612	$ 1,277,121	I&E	12	3.6581
AUT0302		$ -	$ -	$ -	I	1	1.1604
AUT0305		$ 49,751,104	$ 4,326,108	$ 4,354,352	I&E	14	6.9559
AUT0308		$ 3,407,223	$ -	$ 274,576	I&E	7	2.504
AUT0309		$ -	$ -	$ -	I	5	0.1286
AUT0314		$ -	$ -	$ -	I	1	1.1604
AUT0319		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
AUT0321		$ -	$ 150,000	$ 11,965	I&E	11	0.7352
AUT0331		$ -	$ -	$ -	I	5	0.1286
AUT0333		$ -	$ -	$ -	I	1	1.1604
AUT0337		$ -	$ -	$ -	I	5	0.1286
AUT0341		$ -	$ -	$ -	I	1	1.1604
AUT0345		$ -	$ -	$ -	I	1	1.1604
AUT0349		$ -	$ -	$ -	I	1	1.1604
AUT0351		$ 700,911	$ -	$ 56,484	I&E	3	3.4562
AUT0358		$ -	$ -	$ -	I	1	1.1604
AUT0361		$ 893,934	$ -	$ 72,039	I&E	3	3.4562

Tabe 3-2, continued: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 8	column 9	column 10	column 11	column 12	column 13
Facility ID	Intake ID	Net Revenue Losses from Net Construction Downtime	Pilot Study Costs	Annualized Downtime and Pilot Study Costs[2,4]	Performance Standards on which EPA Cost Estimates are Based	EPA Modeled Technology	Design Flow Adjustment Slope (m)[1]
AUT0362		$ -	$ -	$ -	I	1	1.1604
AUT0364		$ -	$ -	$ -	I	1	1.1604
AUT0365		$ -	$ -	$ -	I&E	2	0.8639
AUT0368		$ -	$ -	$ -	I	1	1.1604
AUT0370		$ -	$ -	$ -	I	1	1.1604
AUT0379		$ -	$ -	$ -	I	5	0.1286
AUT0381		$ 506,182	$ -	$ 40,791	I&E	4	2.5787
AUT0384		$ -	$ -	$ -	I&E	2	0.8639
AUT0385		$ 1,445,463	$ -	$ 116,485	I&E	4	2.5787
AUT0387		$ -	$ 533,808	$ 42,581	I&E	2	0.8639
AUT0398		$ 6,440,309	$ -	$ 519,001	I&E	4	2.5787
AUT0399		$ -	$ -	$ -	I	8	0.3315
AUT0401		$ -	$ -	$ -	I	5	0.1286
AUT0404		$ 3,259,312	$ -	$ 262,656	I&E	4	2.5787
AUT0408		$ 803,968	$ -	$ 64,789	I&E	4	2.5787
AUT0416		$ -	$ -	$ -	I&E	2	0.8639
AUT0423		$ -	$ -	$ -	I&E	9	5.973
AUT0427		$ -	$ -	$ -	I	8	0.3315
AUT0431		$ -	$ -	$ -	I	1	1.1604
AUT0434		$ -	$ -	$ -	I	1	1.1604
AUT0435		$ -	$ -	$ -	I&E	2	0.8639
AUT0441		$ -	$ -	$ -	I	1	1.1604
AUT0446		$ 1,404,150	$ -	$ 113,155	I&E	4	2.5787
AUT0449		$ -	$ -	$ -	I	1	1.1604
AUT0472		$ -	$ -	$ -	I&E	2	0.8639
AUT0476		$ -	$ -	$ -	I	1	1.1604
AUT0483		$ -	$ 274,363	$ 21,886	I&E	11	0.7352
AUT0489		$ -	$ -	$ -	I	1	1.1604
AUT0490		$ 3,548,991	$ -	$ 286,000	I&E	4	2.5787
AUT0493		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
AUT0496		$ -	$ -	$ -	I	1	1.1604
AUT0499		$ -	$ -	$ -	I&E	2	0.8639
AUT0501		$ -	$ -	$ -	I&E	2	0.8639
AUT0513		$ 36,923,245	$ -	$ 2,975,512	I&E	4	2.5787
AUT0517		$ -	$ -	$ -	I	1	1.1604
AUT0518		$ -	$ -	$ -	I	1	1.1604
AUT0522		$ -	$ -	$ -	I&E	2	0.8639
AUT0523		$ -	$ -	$ -	I&E	9	5.973
AUT0529		$ -	$ -	$ -	I	1	1.1604
AUT0534		$ -	$ -	$ -	I	1	1.1604
AUT0535		$ 604,316	$ -	$ 48,700	I&E	3	3.4562
AUT0539		$ 2,343,730	$ 1,412,165	$ 301,520	I&E	12	3.6581
AUT0541		$ 27,152,758	$ 169,037	$ 2,201,627	I&E	12	3.6581
AUT0547		$ 17,882,815	$ -	$ 1,441,112	I&E	4	2.5787
AUT0551		$ -	$ 150,000	$ 11,965	I&E	11	0.7352
AUT0552		$ -	$ -	$ -	I	5	0.1286
AUT0553		$ -	$ -	$ -	I	1	1.1604
AUT0554		$ 1,498,242	$ -	$ 120,738	I&E	3	3.4562
AUT0557		$ -	$ -	$ -	I	5	0.1286
AUT0564		$ 15,236,406	$ -	$ 1,227,847	I&E	7	2.504

Tabe 3-2, continued: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 8	column 9	column 10	column 11	column 12	column 13
Facility ID	Intake ID	Net Revenue Losses from Net Construction Downtime	Pilot Study Costs	Annualized Downtime and Pilot Study Costs[2,4]	Performance Standards on which EPA Cost Estimates are Based	EPA Modeled Technology	Design Flow Adjustment Slope (m)[1]
AUT0567		$ 4,139,441	$ -	$ 333,583	I&E	4	2.5787
AUT0568		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
AUT0570		$ -	$ -	$ -	I	1	1.1604
AUT0577		$ -	$ -	$ -	I&E	7	2.504
AUT0583		$ 9,610,528	$ -	$ 774,478	I&E	4	2.5787
AUT0585		$ 1,102,473	$ -	$ 88,844	I&E	4	2.5787
AUT0588		$ -	$ 180,701	$ 14,414	I&E	11	0.7352
AUT0590		$ -	$ -	$ -	I	1	1.1604
AUT0599		$ -	$ 307,205	$ 24,505	I	4	2.5787
AUT0600		$ -	$ -	$ -	I	1	1.1604
AUT0601		$ -	$ -	$ -	I&E	2	0.8639
AUT0603		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
AUT0607		$ 3,693,163	$ 456,845	$ 334,061	I&E	12	3.6581
AUT0611		$ -	$ -	$ -	I	1	1.1604
AUT0612		$ -	$ -	$ -	I&E	13	7.0567
AUT0613		$ -	$ -	$ -	I	1	1.1604
AUT0617		$ 2,161,531	$ 1,247,332	$ 273,688	I&E	12	3.6581
AUT0619		$ -	$ -	$ -	I&E	2	0.8639
AUT0620		$ -	$ 222,140	$ 17,720	I&E	11	0.7352
AUT0621		$ -	$ -	$ -	I	1	1.1604
AUT0623		$ -	$ -	$ -	I	2	0.8639
AUT0625		$ -	$ -	$ -	I	1	1.1604
AUT0630		$ 974,792	$ -	$ 78,555	I&E	3	3.4562
AUT0631		$ 193,002	$ -	$ 15,553	I&E	3	3.4562
AUT0635		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
AUT0638		$ -	$ 236,083	$ 18,832	I&E	2	0.8639
AUT0639		$ -	$ -	$ -	I	1	1.1604
DMU3244	1	$ -	$ -	$ -	I	1	1.1604
DMU3244	2	$ -	$ -	$ -	I	1	1.1604
DMU3310		$ -	$ -	$ -	I	1	1.1604
DNU2003		$ -	$ -	$ -	I	5	0.1286
DNU2010		$ 543,834	$ -	$ 43,826	I	4	2.5787
DNU2011		$ 5,223,420	$ 273,533	$ 442,756	I&E	12	3.6581
DNU2013		$ -	$ 150,000	$ 11,965	I&E	11	0.7352
DNU2014		$ -	$ 150,000	$ 11,965	I&E	11	0.7352
DNU2017		$ -	$ -	$ -	I&E	13	7.0567
DNU2018		$ -	$ -	$ -	I&E	11	0.7352
DNU2021		$ -	$ -	$ -	I	1	1.1604
DNU2025		$ -	$ 779,937	$ 62,215	I&E	2	0.8639
DNU2032	Units 1 & 2	$ -	$ -	$ -	I	5	0.1286
DNU2032	Unit 3	$ -	$ -	$ -	I	5	0.1286
DNU2032	Unit 4	$ -	$ -	$ -	I	5	0.1286
DNU2038		$ -	$ -	$ -	I&E	2	0.8639
DUT0062	1	$ 5,279,493	$ -	$ 425,455	I&E	4	2.5787
DUT0062	2	$ 5,279,493	$ -	$ 425,455	I&E	4	2.5787
DUT0576	5&6	$ -	$ -	$ -	I	1	1.1604
DUT0576	7	$ -	$ -	$ -	I	1	1.1604
DUT0576	CT	$ -	$ -	$ -	I	1	1.1604
DUT1002	Screenhouse 1	$ -	$ -	$ -	I&E	2	0.8639
DUT1002	Screenhouse 2	$ -	$ -	$ -	I&E	2	0.8639

Tabe 3-2, continued: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 8	column 9	column 10	column 11	column 12	column 13
Facility ID	Intake ID	Net Revenue Losses from Net Construction Downtime	Pilot Study Costs	Annualized Downtime and Pilot Study Costs[2,4]	Performance Standards on which EPA Cost Estimates are Based	EPA Modeled Technology	Design Flow Adjustment Slope (m)[1]
DUT1003		$ 236,360	$ -	$ 19,047	I	4	2.5787
DUT1006	Unit 1/2	$ -	$ -	$ -	I	1	1.1604
DUT1006	Unit 3/4	$ -	$ -	$ -	I	1	1.1604
DUT1007		$ -	$ 150,000	$ 11,965	I&E	11	0.7352
DUT1008		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
DUT1011		$ -	$ -	$ -	I	1	1.1604
DUT1012		$ -	$ -	$ -	I	1	1.1604
DUT1014		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
DUT1022		$ -	$ -	$ -	I	1	1.1604
DUT1023	CWS #535		$ -	$ -	I&E	3	3.4562
DUT1023	DWS #536	$ 4,830,432	$ -	$ 389,267	I&E	3	3.4562
DUT1029	CRS		$ -	$ -	I&E	3	3.4562
DUT1029	CR Nuc		$ -	$ -	I&E	2	0.8639
DUT1029	CRN		$ -	$ -	I&E	11	0.7352
DUT1029	HCT	$ 21,796,254	$ 667,692	$ 1,809,743	I&E	11	0.7352
DUT1031	1		$ -	$ -	I&E	4	2.5787
DUT1031	2	$ 5,399,114	$ -	$ 435,095	I&E	4	2.5787
DUT1033		$ -	$ 150,000	$ 11,965	I&E	11	0.7352
DUT1034		$ -	$ 504,175	$ 40,218	I&E	2	0.8639
DUT1036		$ -	$ -	$ -	I	1	1.1604
DUT1038		$ -	$ -	$ -	I	1	1.1604
DUT1041		$ -	$ -	$ -	I	1	1.1604
DUT1043		$ -	$ -	$ -	I	5	0.1286
DUT1044		$ -	$ -	$ -	I	5	0.1286
DUT1047		$ 4,783,541	$ -	$ 385,488	I&E	7	2.504
DUT1048	HI-1	$ -	$ -	$ -	I	1	1.1604
DUT1048	HI-2	$ -	$ -	$ -	I	1	1.1604
DUT1050		$ -	$ -	$ -	I	5	0.1286
DUT1051		$ -	$ -	$ -	I	1	1.1604
DUT1057		$ 7,997,712	$ -	$ 644,507	I&E	4	2.5787
DUT1062		$ -	$ -	$ -	I	5	0.1286
DUT1066		$ 845,987	$ -	$ 68,175	I&E	3	3.4562
DUT1067	1	$ -	$ -	$ -	I	5	0.1286
DUT1067	2	$ -	$ -	$ -	I	5	0.1286
DUT1067	3	$ -	$ -	$ -	I	5	0.1286
DUT1068		$ -	$ -	$ -	I&E	11	0.7352
DUT1072		$ -	$ -	$ -	I	1	1.1604
DUT1084		$ -	$ -	$ -	I	1	1.1604
DUT1085		$ -	$ 243,540	$ 19,427	I&E	2	0.8639
DUT1086	Unit 1	$ -	$ -	$ -	I&E	2	0.8639
DUT1086	Unit 2	$ -	$ 150,000	$ 11,965	I&E	2	0.8639
DUT1088	#4		$ -	$ -	I&E	7	2.504
DUT1088	#5	$ 1,601,167	$ -	$ 129,032	I&E	7	2.504
DUT1093		$ -	$ -	$ -	I&E	9	5.973
DUT1097		$ -	$ 237,372	$ 18,935	I&E	6	5.0065
DUT1098		$ -	$ -	$ -	I	1	1.1604
DUT1100	Units 1 & 2	$ -	$ -	$ -	I	5	0.1286
DUT1100	Units 3 & 4	$ -	$ -	$ -	I	5	0.1286
DUT1103	Unit 1 Screenhouse	$ -	$ -	$ -	I		

Tabe 3-2, continued: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 8	column 9	column 10	column 11	column 12	column 13
Facility ID	Intake ID	Net Revenue Losses from Net Construction Downtime	Pilot Study Costs	Annualized Downtime and Pilot Study Costs[2,4]	Performance Standards on which EPA Cost Estimates are Based	EPA Modeled Technology	Design Flow Adjustment Slope (m)[1]
DUT1103	Unit 2 Screenhouse	$ -	$ -	$ -	I	5	0.1286
DUT1103	Hvdc Lake Intake	$ -	$ -	$ -	I	8	0.3315
DUT1103	Hvdc Separator Dike	$ -	$ -	$ -	I	8	0.3315
DUT1103	River Intake	$ -	$ -	$ -	I	1	1.1604
DUT1109		$ -	$ 150,000	$ 11,965	I	2	0.8639
DUT1111	Unit 1&2	$ -	$ -	$ -	I&E	11	0.7352
DUT1111	Unit 3	$ -	$ 150,000	$ 11,965	I&E	11	0.7352
DUT1112		$ -	$ -	$ -	I	1	1.1604
DUT1113	System 27	$ -	$ -	$ -	I	1	1.1604
DUT1113	System 67	$ -	$ -	$ -	I	8	0.3315
DUT1116		$ -	$ 291,604	$ 23,261	I&E	11	0.7352
DUT1118		$ -	$ -	$ -	I	5	0.1286
DUT1122		$ -	$ -	$ -	I	5	0.1286
DUT1123	6		$ -	$ -	I&E	3	3.4562
DUT1123	7		$ -	$ -	I&E	6	5.0065
DUT1123	8	$ 1,136,010	$ -	$ 91,547	I&E	3	3.4562
DUT1132		$ -	$ 403,601	$ 32,195	I&E	2	0.8639
DUT1133		$ -	$ 150,000	$ 11,965	I&E	11	0.7352
DUT1138		$ -	$ -	$ -	I	1	1.1604
DUT1140	Mc2-4	$ -	$ -	$ -	I	1	1.1604
DUT1140	Mc5&6	$ -	$ -	$ -	I	1	1.1604
DUT1145		$ 1,565,614	$ 273,068	$ 147,950	I&E	12	3.6581
DUT1146		$ -	$ -	$ -	I&E	2	0.8639
DUT1152		$ -	$ -	$ -	I	1	1.1604
DUT1156		$ 9,287,608	$ -	$ 748,455	I&E	7	2.504
DUT1157	6	$ -	$ -	$ -	I&E	4	2.5787
DUT1157	7	$ -	$ -	$ -	I&E	4	2.5787
DUT1165	1		$ -	$ -	I&E	3	3.4562
DUT1165	2	$ 9,426,676	$ -	$ 759,662	I&E		
DUT1169		$ 1,896,934	$ -	$ 152,867	I&E	3	3.4562
DUT1173		$ -	$ -	$ -	I&E	2	0.8639
DUT1179		$ -	$ -	$ -	I	1	1.1604
DUT1185		$ 1,266,125	$ -	$ 102,032	I&E	7	2.504
DUT1186	Unit 4	$ -	$ -	$ -	I	1	1.1604
DUT1186	Unit 5	$ -	$ -	$ -	I	1	1.1604
DUT1187	Mt 2&3	$ -	$ -	$ -	I	5	0.1286
DUT1187	Mt 6-8	$ -	$ -	$ -	I	5	0.1286
DUT1189	Unit 6 & 8	$ -	$ -	$ -	I	5	0.1286
DUT1189	Unit 7	$ -	$ -	$ -	I	5	0.1286
DUT1198		$ 268,118	$ -	$ 21,607	I&E	3	3.4562
DUT1202	Power Plant	$ -	$ -	$ -	I&E	11	0.7352
DUT1202	Filtration Plant	$ -	$ -	$ -	I&E	9	5.973
DUT1206	1	$ -	$ -	$ -	I&E	2	0.8639
DUT1206	2	$ -	$ -	$ -	I&E	2	0.8639
DUT1206	3	$ -	$ -	$ -	I&E	2	0.8639
DUT1209	Plant a		$ -	$ -	I&E	11	0.7352
DUT1209	Plant B	$ 5,849,051	$ -	$ 471,354	I&E	3	3.4562
DUT1211		$ -	$ 3,326,419	$ 265,345	I&E	11	0.7352

Tabe 3-2, continued: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 8	column 9	column 10	column 11	column 12	column 13
Facility ID	Intake ID	Net Revenue Losses from Net Construction Downtime	Pilot Study Costs	Annualized Downtime and Pilot Study Costs[2,4]	Performance Standards on which EPA Cost Estimates are Based	EPA Modeled Technology	Design Flow Adjustment Slope (m)[1]
DUT1212		$ -	$ -	$ -	I	1	1.1604
DUT1214		$ 7,829,721	$ -	$ 630,969	I	4	2.5787
DUT1217	Unit 1	$ -	$ -	$ -	I&E		
DUT1217	Unit 6-8	$ -	$ -	$ -	I&E	13	7.0567
DUT1217	Unit 4	$ -	$ -	$ -	I&E		
DUT1219		$ -	$ 289,194	$ 23,069	I&E	2	0.8639
DUT1223	1		$ -	$ -	I&E	12	3.6581
DUT1223	2	$ 376,088	$ 179,011	$ 44,587	I&E	12	3.6581
DUT1227	1 & 2	$ -	$ -	$ -	I	1	1.1604
DUT1227	3	$ -	$ -	$ -	I	1	1.1604
DUT1229		$ -	$ -	$ -	I&E	2	0.8639
DUT1238	A	$ -	$ -	$ -	I	2	0.8639
DUT1238	B	$ -	$ -	$ -	I	2	0.8639
DUT1248		$ -	$ -	$ -	I	5	0.1286
DUT1249		$ -	$ -	$ -	I	5	0.1286
DUT1250		$ 17,224,807	$ -	$ 1,388,085	I&E	7	2.504
DUT1252		$ -	$ -	$ -	I	1	1.1604
DUT1258	Screen House No.1		$ -	$ -	I&E	3	3.4562
DUT1258	Screen House No.2		$ -	$ -	I&E	3	3.4562
DUT1258	Screen House No.3	$ 4,429,893	$ -	$ 356,989	I&E	3	3.4562
DUT1259		$ 81,723	$ -	$ 6,586	I&E	3	3.4562
DUT1261	U12		$ -	$ -	I&E	2	0.8639
DUT1261	U34	$ 1,650,821	$ -	$ 133,034	I&E	4	2.5787
DUT1265		$ -	$ 150,000	$ 11,965	I&E	2	0.8639
DUT1268		$ -	$ 2,112,610	$ 168,521	I&E	11	0.7352
DUT1269		$ -	$ 304,315	$ 24,275	I&E	11	0.7352
DUT1270		$ -	$ -	$ -	I	5	0.1286
DUT1271		$ 4,337,253	$ 1,512,343	$ 470,162	I&E	7	2.504
DUT1272	Mo1 & 2	$ -	$ -	$ -	I	1	1.1604
DUT1272	Mo3	$ -	$ -	$ -	I	1	1.1604
DUT1273		$ -	$ -	$ -	I	1	1.1604
DUT1274		$ -	$ -	$ -	I	1	1.1604
DUT1275		$ -	$ 680,886	$ 54,314	I	2	0.8639
DUT1276		$ -	$ -	$ -	I&E	11	0.7352
DUT1278		$ -	$ -	$ -	I	1	1.1604
		Facilities Receiving No EPA Technology Upgrade Costs					
AUT0010		$ -	$ -	$ -		n/a	n/a
AUT0013		$ -	$ -	$ -		n/a	n/a
AUT0018		$ -	$ -	$ -		n/a	n/a
AUT0022		$ -	$ -	$ -		n/a	n/a
AUT0033		$ -	$ -	$ -		n/a	n/a
AUT0036		$ -	$ -	$ -		n/a	n/a
AUT0041		$ -	$ -	$ -		n/a	n/a
AUT0047		$ -	$ -	$ -		n/a	n/a
AUT0050		$ -	$ -	$ -		n/a	n/a
AUT0054		$ -	$ -	$ -		n/a	n/a
AUT0067		$ -	$ -	$ -		n/a	n/a

Tabe 3-2, continued: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 8	column 9	column 10	column 11	column 12	column 13
Facility ID	Intake ID	Net Revenue Losses from Net Construction Downtime	Pilot Study Costs	Annualized Downtime and Pilot Study Costs[2,4]	Performance Standards on which EPA Cost Estimates are Based	EPA Modeled Technology	Design Flow Adjustment Slope (m)[1]
AUT0068		$ -	$ -	$ -		n/a	n/a
AUT0071		$ -	$ -	$ -		n/a	n/a
AUT0072		$ -	$ -	$ -		n/a	n/a
AUT0073		$ -	$ -	$ -		n/a	n/a
AUT0077		$ -	$ -	$ -		n/a	n/a
AUT0079		$ -	$ -	$ -		n/a	n/a
AUT0080		$ -	$ -	$ -		n/a	n/a
AUT0083		$ -	$ -	$ -		n/a	n/a
AUT0087		$ -	$ -	$ -		n/a	n/a
AUT0091		$ -	$ -	$ -		n/a	n/a
AUT0093		$ -	$ -	$ -		n/a	n/a
AUT0097		$ -	$ -	$ -		n/a	n/a
AUT0101		$ -	$ -	$ -		n/a	n/a
AUT0104		$ -	$ -	$ -		n/a	n/a
AUT0111		$ -	$ -	$ -		n/a	n/a
AUT0114		$ -	$ -	$ -		n/a	n/a
AUT0125		$ -	$ -	$ -		n/a	n/a
AUT0126		$ -	$ -	$ -		n/a	n/a
AUT0129		$ -	$ -	$ -		n/a	n/a
AUT0152		$ -	$ -	$ -		n/a	n/a
AUT0156		$ -	$ -	$ -		n/a	n/a
AUT0157		$ -	$ -	$ -		n/a	n/a
AUT0160		$ -	$ -	$ -		n/a	n/a
AUT0163		$ -	$ -	$ -		n/a	n/a
AUT0170		$ -	$ -	$ -		n/a	n/a
AUT0173		$ -	$ -	$ -		n/a	n/a
AUT0178		$ -	$ -	$ -		n/a	n/a
AUT0181		$ -	$ -	$ -		n/a	n/a
AUT0182		$ -	$ -	$ -		n/a	n/a
AUT0199		$ -	$ -	$ -		n/a	n/a
AUT0201		$ -	$ -	$ -		n/a	n/a
AUT0215		$ -	$ -	$ -		n/a	n/a
AUT0216		$ -	$ -	$ -		n/a	n/a
AUT0221		$ -	$ -	$ -		n/a	n/a
AUT0226		$ -	$ -	$ -		n/a	n/a
AUT0230		$ -	$ -	$ -		n/a	n/a
AUT0232		$ -	$ -	$ -		n/a	n/a
AUT0235		$ -	$ -	$ -		n/a	n/a
AUT0240		$ -	$ -	$ -		n/a	n/a
AUT0241		$ -	$ -	$ -		n/a	n/a
AUT0246		$ -	$ -	$ -		n/a	n/a
AUT0248		$ -	$ -	$ -		n/a	n/a
AUT0257		$ -	$ -	$ -		n/a	n/a
AUT0260		$ -	$ -	$ -		n/a	n/a
AUT0270		$ -	$ -	$ -		n/a	n/a
AUT0275		$ -	$ -	$ -		n/a	n/a
AUT0276		$ -	$ -	$ -		n/a	n/a
AUT0285		$ -	$ -	$ -		n/a	n/a
AUT0286		$ -	$ -	$ -		n/a	n/a
AUT0287		$ -	$ -	$ -		n/a	n/a

Tabe 3-2, continued: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 8	column 9	column 10	column 11	column 12	column 13
Facility ID	Intake ID	Net Revenue Losses from Net Construction Downtime	Pilot Study Costs	Annualized Downtime and Pilot Study Costs[2,4]	Performance Standards on which EPA Cost Estimates are Based	EPA Modeled Technology	Design Flow Adjustment Slope (m)[1]
AUT0296		$ -	$ -	$ -		n/a	n/a
AUT0300		$ -	$ -	$ -		n/a	n/a
AUT0304		$ -	$ -	$ -		n/a	n/a
AUT0307		$ -	$ -	$ -		n/a	n/a
AUT0310		$ -	$ -	$ -		n/a	n/a
AUT0315		$ -	$ -	$ -		n/a	n/a
AUT0343		$ -	$ -	$ -		n/a	n/a
AUT0344		$ -	$ -	$ -		n/a	n/a
AUT0350		$ -	$ -	$ -		n/a	n/a
AUT0355		$ -	$ -	$ -		n/a	n/a
AUT0356		$ -	$ -	$ -		n/a	n/a
AUT0359		$ -	$ -	$ -		n/a	n/a
AUT0363		$ -	$ -	$ -		n/a	n/a
AUT0373		$ -	$ -	$ -		n/a	n/a
AUT0380		$ -	$ -	$ -		n/a	n/a
AUT0388		$ -	$ -	$ -		n/a	n/a
AUT0390		$ -	$ -	$ -		n/a	n/a
AUT0394		$ -	$ -	$ -		n/a	n/a
AUT0396		$ -	$ -	$ -		n/a	n/a
AUT0397		$ -	$ -	$ -		n/a	n/a
AUT0403		$ -	$ -	$ -		n/a	n/a
AUT0405		$ -	$ -	$ -		n/a	n/a
AUT0406		$ -	$ -	$ -		n/a	n/a
AUT0411		$ -	$ -	$ -		n/a	n/a
AUT0415		$ -	$ -	$ -		n/a	n/a
AUT0419		$ -	$ -	$ -		n/a	n/a
AUT0424		$ -	$ -	$ -		n/a	n/a
AUT0433		$ -	$ -	$ -		n/a	n/a
AUT0440		$ -	$ -	$ -		n/a	n/a
AUT0443		$ -	$ -	$ -		n/a	n/a
AUT0444		$ -	$ -	$ -		n/a	n/a
AUT0453		$ -	$ -	$ -		n/a	n/a
AUT0455		$ -	$ -	$ -		n/a	n/a
AUT0459		$ -	$ -	$ -		n/a	n/a
AUT0462		$ -	$ -	$ -		n/a	n/a
AUT0463		$ -	$ -	$ -		n/a	n/a
AUT0467		$ -	$ -	$ -		n/a	n/a
AUT0473		$ -	$ -	$ -		n/a	n/a
AUT0477		$ -	$ -	$ -		n/a	n/a
AUT0478		$ -	$ -	$ -		n/a	n/a
AUT0481		$ -	$ -	$ -		n/a	n/a
AUT0482		$ -	$ -	$ -		n/a	n/a
AUT0492		$ -	$ -	$ -		n/a	n/a
AUT0500		$ -	$ -	$ -		n/a	n/a
AUT0507		$ -	$ -	$ -		n/a	n/a
AUT0512		$ -	$ -	$ -		n/a	n/a
AUT0515		$ -	$ -	$ -		n/a	n/a
AUT0521		$ -	$ -	$ -		n/a	n/a
AUT0531		$ -	$ -	$ -		n/a	n/a
AUT0536		$ -	$ -	$ -		n/a	n/a

Tabe 3-2, continued: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 8	column 9	column 10	column 11	column 12	column 13
Facility ID	Intake ID	Net Revenue Losses from Net Construction Downtime	Pilot Study Costs	Annualized Downtime and Pilot Study Costs[2,4]	Performance Standards on which EPA Cost Estimates are Based	EPA Modeled Technology	Design Flow Adjustment Slope (m)[1]
AUT0537		$ -	$ -	$ -		n/a	n/a
AUT0538		$ -	$ -	$ -		n/a	n/a
AUT0540		$ -	$ -	$ -		n/a	n/a
AUT0544		$ -	$ -	$ -		n/a	n/a
AUT0546		$ -	$ -	$ -		n/a	n/a
AUT0555		$ -	$ -	$ -		n/a	n/a
AUT0559		$ -	$ -	$ -		n/a	n/a
AUT0561		$ -	$ -	$ -		n/a	n/a
AUT0571		$ -	$ -	$ -		n/a	n/a
AUT0573		$ -	$ -	$ -		n/a	n/a
AUT0575		$ -	$ -	$ -		n/a	n/a
AUT0580		$ -	$ -	$ -		n/a	n/a
AUT0582		$ -	$ -	$ -		n/a	n/a
AUT0595		$ -	$ -	$ -		n/a	n/a
AUT0602		$ -	$ -	$ -		n/a	n/a
AUT0604		$ -	$ -	$ -		n/a	n/a
AUT0606		$ -	$ -	$ -		n/a	n/a
AUT0608		$ -	$ -	$ -		n/a	n/a
AUT0618		$ -	$ -	$ -		n/a	n/a
AUT0636		$ -	$ -	$ -		n/a	n/a
AUT0637		$ -	$ -	$ -		n/a	n/a
AUT0755		$ -	$ -	$ -		n/a	n/a
DNU2002		$ -	$ -	$ -		n/a	n/a
DNU2005		$ -	$ -	$ -		n/a	n/a
DNU2006		$ -	$ -	$ -		n/a	n/a
DNU2015		$ -	$ -	$ -		n/a	n/a
DNU2031		$ -	$ -	$ -		n/a	n/a
DNU2047		$ -	$ -	$ -		n/a	n/a
DUT1010		$ -	$ -	$ -		n/a	n/a
DUT1013		$ -	$ -	$ -		n/a	n/a
DUT1021		$ -	$ -	$ -		n/a	n/a
DUT1026		$ -	$ -	$ -		n/a	n/a
DUT1027		$ -	$ -	$ -		n/a	n/a
DUT1032		$ -	$ -	$ -		n/a	n/a
DUT1039		$ -	$ -	$ -		n/a	n/a
DUT1046		$ -	$ -	$ -		n/a	n/a
DUT1049		$ -	$ -	$ -		n/a	n/a
DUT1053		$ -	$ -	$ -		n/a	n/a
DUT1056		$ -	$ -	$ -		n/a	n/a
DUT1070		$ -	$ -	$ -		n/a	n/a
DUT1071		$ -	$ -	$ -		n/a	n/a
DUT1078		$ -	$ -	$ -		n/a	n/a
DUT1081		$ -	$ -	$ -		n/a	n/a
DUT1087		$ -	$ -	$ -		n/a	n/a
DUT1092		$ -	$ -	$ -		n/a	n/a
DUT1104		$ -	$ -	$ -		n/a	n/a
DUT1105		$ -	$ -	$ -		n/a	n/a
DUT1106		$ -	$ -	$ -		n/a	n/a
DUT1117		$ -	$ -	$ -		n/a	n/a
DUT1120		$ -	$ -	$ -		n/a	n/a

Tabe 3-2, continued: Costs Considered by EPA in Establishing Performance Standards ($2002)

column 1	column 2	column 8	column 9	column 10	column 11	column 12	column 13
Facility ID	Intake ID	Net Revenue Losses from Net Construction Downtime	Pilot Study Costs	Annualized Downtime and Pilot Study Costs[2,4]	Performance Standards on which EPA Cost Estimates are Based	EPA Modeled Technology	Design Flow Adjustment Slope (m)[1]
DUT1129		$ -	$ -	$ -		n/a	n/a
DUT1130		$ -	$ -	$ -		n/a	n/a
DUT1142		$ -	$ -	$ -		n/a	n/a
DUT1143		$ -	$ -	$ -		n/a	n/a
DUT1148		$ -	$ -	$ -		n/a	n/a
DUT1149		$ -	$ -	$ -		n/a	n/a
DUT1153		$ -	$ -	$ -		n/a	n/a
DUT1154		$ -	$ -	$ -		n/a	n/a
DUT1155		$ -	$ -	$ -		n/a	n/a
DUT1161		$ -	$ -	$ -		n/a	n/a
DUT1167		$ -	$ -	$ -		n/a	n/a
DUT1170		$ -	$ -	$ -		n/a	n/a
DUT1172		$ -	$ -	$ -		n/a	n/a
DUT1174		$ -	$ -	$ -		n/a	n/a
DUT1175		$ -	$ -	$ -		n/a	n/a
DUT1176		$ -	$ -	$ -		n/a	n/a
DUT1177		$ -	$ -	$ -		n/a	n/a
DUT1183		$ -	$ -	$ -		n/a	n/a
DUT1188		$ -	$ -	$ -		n/a	n/a
DUT1191		$ -	$ -	$ -		n/a	n/a
DUT1192		$ -	$ -	$ -		n/a	n/a
DUT1194		$ -	$ -	$ -		n/a	n/a
DUT1199		$ -	$ -	$ -		n/a	n/a
DUT1201		$ -	$ -	$ -		n/a	n/a
DUT1213		$ -	$ -	$ -		n/a	n/a
DUT1220		$ -	$ -	$ -		n/a	n/a
DUT1222		$ -	$ -	$ -		n/a	n/a
DUT1224		$ -	$ -	$ -		n/a	n/a
DUT1225		$ -	$ -	$ -		n/a	n/a
DUT1228		$ -	$ -	$ -		n/a	n/a
DUT1233		$ -	$ -	$ -		n/a	n/a
DUT1234		$ -	$ -	$ -		n/a	n/a
DUT1235		$ -	$ -	$ -		n/a	n/a
DUT1239		$ -	$ -	$ -		n/a	n/a
DUT1243		$ -	$ -	$ -		n/a	n/a
DUT1254		$ -	$ -	$ -		n/a	n/a
DUT1257		$ -	$ -	$ -		n/a	n/a
DUT1262		$ -	$ -	$ -		n/a	n/a

[1]The design flow adjustment slope (m) represents the slope that corresponds to the particular facility using the technology in column 3.

[2]Discount rate = 7%

[3]Amortization period for capital costs = 10 years

[4]Amortization period for downtime and pilot study costs = 30 years

Note: Depending on the data provided, some facilities with multiple intakes were costed separately for each intake. In such cases, the facility should calculate the costs considered by EPA for each intake using the steps below and sum. Note that some costs (eg construction downtime) are assigned evenly to each intake for convenience.

Table 3-3: Facility ID and Facility Name for All Facilities Not Claiming Survey Information CBI

Facility ID	Facility Name
AUT0001	Cane Run
AUT0002	Chesapeake
AUT0004	Hennepin
AUT0010	Bowen
AUT0011	Shawville
AUT0012	Diablo Canyon Nuclear
AUT0013	Montville
AUT0014	Williams
AUT0015	Northport
AUT0016	Cholla
AUT0018	R M Heskett Station
AUT0019	Charles Poletti
AUT0020	B L England
AUT0021	B C Cobb
AUT0022	St Johns River Power
AUT0024	Bull Run
AUT0027	Lake Hubbard
AUT0033	Muscatine
AUT0036	Edgewater
AUT0041	Edwin I Hatch
AUT0044	Hunters Point
AUT0047	Michoud
AUT0049	Chalk Point
AUT0050	Wyandotte
AUT0051	Suwannee River
AUT0053	Nelson Dewey
AUT0054	Flint Creek
AUT0057	Thomas Fitzhugh
AUT0058	Mercer
AUT0064	Decordova
AUT0066	Fermi Nuclear
AUT0067	Henry D King
AUT0068	Scattergood
AUT0071	Oswego
AUT0072	Sioux
AUT0073	Lake Catherine
AUT0078	Missouri City
AUT0079	Eagle Mountain
AUT0080	Lone Star
AUT0083	Schiller
AUT0084	Salem Nuclear
AUT0085	Point Beach Nuclear
AUT0092	Linden
AUT0093	Perry Nuclear
AUT0095	Tyrone
AUT0097	Little Gypsy
AUT0101	Lakeside
AUT0106	Cheswick
AUT0110	C P Crane
AUT0111	Cape Fear
AUT0114	Kewaunee Nuclear
AUT0120	Norwalk Harbor
AUT0123	Warren

Table 3-3: Facility ID and Facility Name for All Facilities Not Claiming Survey Information CBI

Facility ID	Facility Name
AUT0125	Beaver Valley Nuclear
AUT0127	Lake Road
AUT0129	Susquehanna Nuclear
AUT0130	Elmer W Stout
AUT0131	Hammond
AUT0134	Mount Tom
AUT0137	Mitchell
AUT0139	Albany
AUT0142	Lauderdale
AUT0143	Wood River
AUT0146	Meredosia
AUT0148	Tanners Creek
AUT0149	Thomas Hill
AUT0151	Decker Creek
AUT0152	Duck Creek
AUT0156	Waterford 1 & 2
AUT0157	Pulliam
AUT0160	L V Sutton
AUT0161	Valley
AUT0163	Belle River
AUT0168	E F Barrett
AUT0170	O W Sommers
AUT0171	New Madrid
AUT0173	Fort Calhoun Nuclear
AUT0174	Herbert a Wagner
AUT0175	R E Burger
AUT0176	Martin Lake
AUT0178	Mt Storm
AUT0181	Prairie Creek
AUT0182	Arsenal Hill
AUT0183	Schuylkill
AUT0185	Gallatin
AUT0187	North Anna Nuclear
AUT0190	Ginna
AUT0191	J H Campbell
AUT0192	R W Miller
AUT0193	Joliet 29
AUT0196	Southside
AUT0197	Austin-dt
AUT0201	Cope
AUT0202	Donald C Cook Nuclear
AUT0203	Riverside
AUT0205	Joliet 9
AUT0208	New Castle
AUT0215	Coleto Creek
AUT0216	Fort St Vrain
AUT0221	Polk
AUT0222	Marion
AUT0226	Sooner
AUT0227	Silver Lake
AUT0228	High Bridge
AUT0229	Dan E Karn

Table 3-3: Facility ID and Facility Name for All Facilities Not Claiming Survey Information CBI

Facility ID	Facility Name
AUT0230	Mcwilliams
AUT0232	V H Braunig
AUT0235	Sam Rayburn
AUT0238	North Lake
AUT0240	Lee
AUT0241	J B Sims
AUT0242	Quad Cities Nuclear
AUT0244	Elk River
AUT0245	Avon Lake
AUT0246	Canaday
AUT0248	Sam Bertron
AUT0254	Chamois
AUT0255	Cooper
AUT0257	Gerald Gentleman
AUT0260	Marshall
AUT0261	Dale
AUT0264	Indian Point 3 Nucler
AUT0266	North Omaha
AUT0268	Cutler
AUT0270	Possum Point
AUT0273	Stanton
AUT0275	Seabrook Nuclear
AUT0276	River Rouge
AUT0277	Dubuque
AUT0278	Morgantown
AUT0284	Handley
AUT0285	Conners Creek
AUT0286	Welsh
AUT0287	Horseshoe Lake
AUT0292	Harris Nuclear
AUT0295	Jack Mcdonough
AUT0296	W H Zimmer
AUT0297	Quindaro
AUT0298	Harllee Branch
AUT0299	Chesterfield
AUT0300	Eckert Station
AUT0302	US DOE SRS (D-area)
AUT0304	Lansing
AUT0305	Kahe
AUT0307	Rodemacher
AUT0308	W S Lee
AUT0309	Wilkes
AUT0310	A B Paterson
AUT0314	Philip Sporn
AUT0315	Sabine
AUT0319	Cliffside
AUT0321	J E Corette
AUT0331	Lake Creek
AUT0333	Hamilton
AUT0337	Johnsonville
AUT0341	Montrose
AUT0343	John E Amos
AUT0344	Weston

Table 3-3: Facility ID and Facility Name for All Facilities Not Claiming Survey Information CBI

Facility ID	Facility Name
AUT0345	Summer Nuclear
AUT0349	Mcguire Nuclear
AUT0350	Clinton Nuclear
AUT0351	Portland
AUT0355	Limerick Nuclear
AUT0356	Byron Nuclear
AUT0358	H T Pritchard
AUT0359	Hookers Point
AUT0361	Hawthorn
AUT0362	Teche
AUT0363	Wansley
AUT0364	Dresden Nuclear
AUT0365	Arkwright
AUT0368	Kaw
AUT0370	Deepwater
AUT0373	Valmont
AUT0379	Lake Pauline
AUT0380	Will County
AUT0381	Healy
AUT0384	Somerset
AUT0385	Hutsonville
AUT0387	Haynes
AUT0388	Lewis Creek
AUT0390	Fort Churchill
AUT0394	Nebraska City
AUT0396	Bremo Power Station
AUT0397	George Neal North
AUT0398	Iatan
AUT0399	Boomer Lake
AUT0401	Fort Myers
AUT0403	Nine Mile Point Nuclear
AUT0404	Mitchell
AUT0405	Fisk
AUT0406	Merom
AUT0408	Cameo
AUT0411	Roseton
AUT0415	Rochester 7
AUT0416	Noblesville
AUT0419	Brunswick Nuclear
AUT0423	James a Fitzpatrick
AUT0424	Davis-besse
AUT0427	Blount Street
AUT0431	San Angelo
AUT0433	Mistersky
AUT0434	Paradise
AUT0435	Shiras
AUT0440	Eaton
AUT0441	Piqua
AUT0443	Milton L Kapp
AUT0444	Gibbons Creek
AUT0446	Richard H. Gorsuch
AUT0449	Big Brown

Table 3-3: Facility ID and Facility Name for All Facilities Not Claiming Survey Information CBI

Facility ID	Facility Name
AUT0453	Four Corners
AUT0455	Seminole
AUT0459	Vogtle Nuclear
AUT0462	Warrick
AUT0463	Rex Brown
AUT0467	Vero Beach
AUT0472	Miami Fort
AUT0473	Palisades Nuclear
AUT0476	Trinidad
AUT0477	Fair Station
AUT0478	Dansby
AUT0481	Powerlane
AUT0482	Gen J M Gavin
AUT0483	Shawnee
AUT0489	Nearman Creek
AUT0490	Buck
AUT0492	Collins
AUT0493	E S Joslin
AUT0496	Indian River
AUT0499	Bay Front
AUT0500	Big Cajun 2
AUT0501	Jack Watson
AUT0507	Crawford
AUT0512	J K Spruce
AUT0513	Waterford #3 Nuclear
AUT0515	Rockport
AUT0517	Humboldt Bay
AUT0518	James River
AUT0521	Menasha
AUT0522	Jefferies
AUT0523	Walter C Beckjord
AUT0529	Gould Street
AUT0531	Braidwood Nuclear
AUT0534	Crisp
AUT0535	Urquhart
AUT0536	Rush Island
AUT0537	Dallman
AUT0538	Genoa
AUT0539	Edge Moor
AUT0540	J P Madgett
AUT0541	Indian Point Nuclear
AUT0544	Eddystone
AUT0546	Watts Bar Nuclear
AUT0547	Muskingum River
AUT0551	Allen S King
AUT0552	Kingston
AUT0553	Hunlock Pwr Station
AUT0554	Potomac River
AUT0555	Zuni
AUT0557	Sayreville
AUT0561	J T Deely
AUT0564	Kyger Creek
AUT0567	F B Culley

Table 3-3: Facility ID and Facility Name for All Facilities Not Claiming Survey Information CBI

Facility ID	Facility Name
AUT0568	Northside
AUT0570	Peach Bottom Nuclear
AUT0571	Baxter Wilson
AUT0573	San Onofre Nuclear
AUT0575	Trenton Channel
AUT0577	Middletown
AUT0580	Sixth Street
AUT0582	E W Brown
AUT0583	Dave Johnston
AUT0585	Burlington
AUT0588	Monticello
AUT0590	C D Mcintosh Jr
AUT0599	Kearny
AUT0600	Kincaid
AUT0601	Bridgeport Harbor
AUT0602	Mason Steam
AUT0603	Astoria
AUT0604	C R Huntley
AUT0606	Hmp&l Station 2
AUT0607	Moss Landing
AUT0608	Pilgrim Nuclear
AUT0611	New Boston
AUT0612	Huntington Beach
AUT0613	Morro Bay
AUT0617	Ravenswood
AUT0618	New Haven Harbor
AUT0619	William F Wyman
AUT0620	Dunkirk
AUT0621	Contra Costa
AUT0623	Kendall Square
AUT0625	Encina
AUT0630	Lovett
AUT0631	Salem Harbor
AUT0635	Aes Hickling
AUT0637	Ormond Beach
AUT0638	Mandalay
AUT0639	Pittsburg
DMU3244	University of Notre Dame Power Plant
DMU3310	University of Iowa - Main Power Plant
DNU2002	Brooklyn Navy Yard Cogeneration Partners, L.P.
DNU2011	Long Beach Generation
DNU2013	Maine Energy Recovery Company
DNU2014	Baltimore Resco
DNU2015	Southern Energy-Canal
DNU2017	Westchester Resco Co.
DNU2018	Grays Ferry Cogeneration Partnership
DNU2021	Morgantown
DNU2025	Sparrows Point Div Bethlehem Steel Corp
DNU2031	Ch Resources - Beaver Falls
DNU2032	Duke Energy South Bay
DNU2038	Saugus Resco
DNU2047	El Segundo Power

Table 3-3: Facility ID and Facility Name for All Facilities Not Claiming Survey Information CBI

Facility ID	Facility Name
DUT0062	Leland Olds Station
DUT0576	Sam O. Purdom Generating Station
DUT1002	Monroe
DUT1003	Peru
DUT1006	Martins Creek
DUT1007	Presque Isle
DUT1008	Far Rockaway
DUT1011	Stryker Creek
DUT1012	Grand Tower
DUT1014	Dolphus M Grainger
DUT1021	Alma
DUT1022	Comanche Peak Nuclea
DUT1023	Oyster Creek Nuclear
DUT1026	Delaware
DUT1029	Crystal River
DUT1031	Merrimack
DUT1033	J C Weadock
DUT1034	South Oak Creek
DUT1036	Allen
DUT1038	North Texas
DUT1041	Elmer Smith
DUT1043	Ray Olinger
DUT1044	Tradinghouse
DUT1046	Labadie
DUT1047	Elrama
DUT1048	Holly Street
DUT1049	Joppa Steam
DUT1050	Browns Ferry Nuclear
DUT1051	Havana
DUT1056	Webster
DUT1057	Wateree
DUT1062	Fayette Power Prj
DUT1066	F J Gannon
DUT1067	Paint Creek
DUT1068	Harbor
DUT1070	Millstone
DUT1072	Graham
DUT1084	Fort Phantom
DUT1085	Petersburg
DUT1086	Valley
DUT1088	Seward
DUT1093	Bailly
DUT1097	Rock River
DUT1098	Blackhawk
DUT1100	Sewaren
DUT1103	Milton R Young
DUT1109	Riverside
DUT1111	E D Edwards
DUT1112	Lieberman
DUT1113	Sequoyah Nuclear
DUT1116	Waiau
DUT1117	Columbia
DUT1118	Cooper

Table 3-3: Facility ID and Facility Name for All Facilities Not Claiming Survey Information CBI

Facility ID	Facility Name
DUT1122	Edgewater
DUT1123	Waukegan
DUT1132	Cumberland
DUT1133	J R Whiting
DUT1138	Harbor
DUT1140	Morgan Creek
DUT1142	Victoria
DUT1143	East River
DUT1145	Honolulu
DUT1146	Devon
DUT1148	Council Bluffs
DUT1152	Coffeen
DUT1153	Mill Creek
DUT1154	Mcclellan
DUT1155	P H Robinson
DUT1156	John Sevier
DUT1157	Sterlington
DUT1161	Robert E Ritchie
DUT1165	Big Bend
DUT1167	Ninemile Point
DUT1169	Hudson
DUT1170	Carl Bailey
DUT1172	Barney M Davis
DUT1173	Logansport
DUT1174	Arkansas Nuclear One
DUT1175	Fox Lake
DUT1179	Pirkey
DUT1185	Cromby
DUT1186	Glenwood
DUT1187	Mountain Creek
DUT1189	Larsen Memorial
DUT1191	Monroe
DUT1192	Meramec
DUT1194	Gerald Andrus
DUT1198	O H Hutchings
DUT1202	Manitowoc
DUT1206	Indian River
DUT1209	Widows Creek
DUT1211	Surry Nuclear
DUT1212	J M Stuart
DUT1213	Riverside
DUT1214	Charles R Lowman
DUT1217	Deepwater
DUT1219	Port Washington
DUT1223	Nueces Bay
DUT1225	Burlington
DUT1227	Sibley
DUT1228	Willow Glen
DUT1229	Riverton
DUT1235	Riverside
DUT1238	Cedar Bayou
DUT1248	Knox Lee

Table 3-3: Facility ID and Facility Name for All Facilities Not Claiming Survey Information CBI

Facility ID	Facility Name
DUT1249	Oak Creek
DUT1250	Vermont Yankee Nuclear
DUT1252	Muskogee
DUT1258	St Clair
DUT1259	James De Young
DUT1261	Green River
DUT1265	River Crest
DUT1268	Calvert Cliffs Nuclear
DUT1269	Dean H Mitchell
DUT1270	Pueblo
DUT1271	Michigan City
DUT1272	Monticello
DUT1273	Sim Gideon
DUT1274	P L Bartow
DUT1275	Anclote
DUT1276	Animas
DUT1278	Newton

4.0 COST CORRECTION

Derivation of the cost correction equation and technology module slopes.

Rather than providing the detailed costing equations that EPA used to calculate annualized capital and net O&M costs for facilities to use each of the modeled technologies, EPA has provided the simplified formula (equation 1), which collapses the results of those equations for the particular facility and technology into a single result (y_{epa}) and then allows the facility to adjust this result to reflect its actual design intake flow, using a technology specific slope for a facility like yours that is derived from the costing equations. This allows facilities to perform the flow adjustment in a straightforward and transparent manner. The Agency analyzed each of the cooling water intake structures (facilities) predicted to implement each technology module with respect to its annual capital plus net O&M costs, normalized by design intake flow. The Agency then performed a best-fit for each technology, as presented in figures 3-1 through 3-13.

Derivation of the correction factor for impingement mortality and/or entrainment requirements.

In calculating compliance costs, EPA projected what performance standards would be applicable to the facility based on available data. However, because of both variability and uncertainty in the underlying parameters that determine which performance standards apply (e.g., capacity utilization rate, mean annual flow), it is possible that in some cases the performance standards that EPA projected are not correct. The adjustment factor of 2.148 was determined by taking the ratio of median compliance costs for facilities to meet impingement mortality and entrainment performance standards over median compliance costs for facilities to meet impingement mortality performance standards only. While using this adjustment factor will not necessarily yield the exact compliance costs that EPA would have calculated had it had current information, EPA believes the results are reasonable for determining whether a facility's actual compliance costs are "significantly greater than" the costs considered by EPA for a like facility in establishing the applicable performance standards. EPA believes it is preferable to provide a simple and transparent methodology for making this adjustment that yields reasonably accurate results, rather than a much more complex methodology that would be difficult to use and understand (for the facility, permit writer, and public), even if the more complex methodology would yield slightly more accurate results. DCN 6-3588 in the confidential business information docket provides the calculations upon which the correction factor is based.

Fig. 3-1. Module 1, Add fish handling and return system to traveling screens

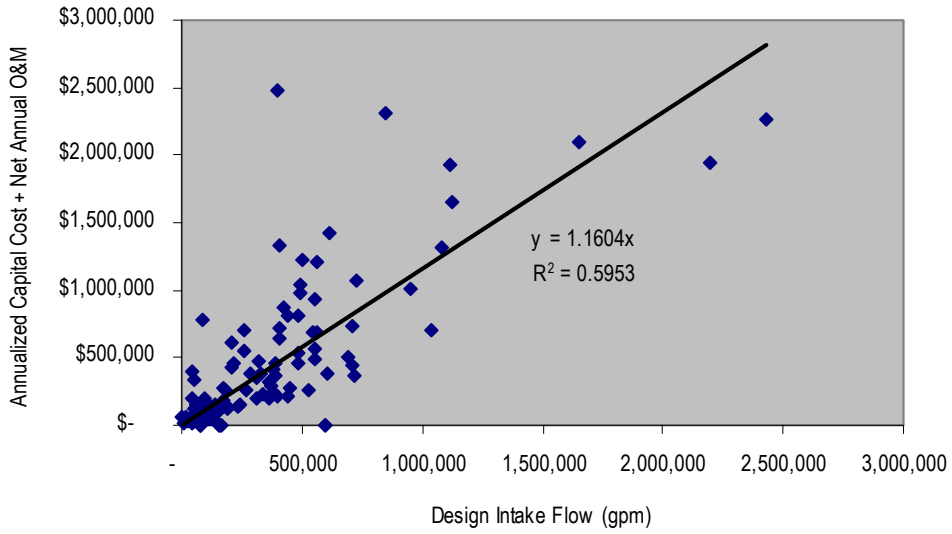


Fig. 3-2. Module 2, Add fine-mesh screens to traveling screens

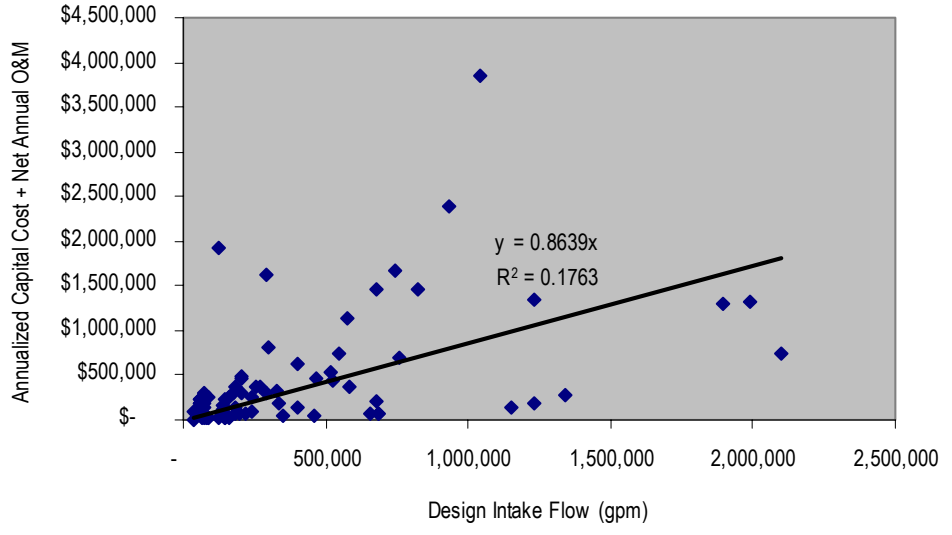


Fig. 3-3. Module 3, Add new, larger intake in front of existing intake

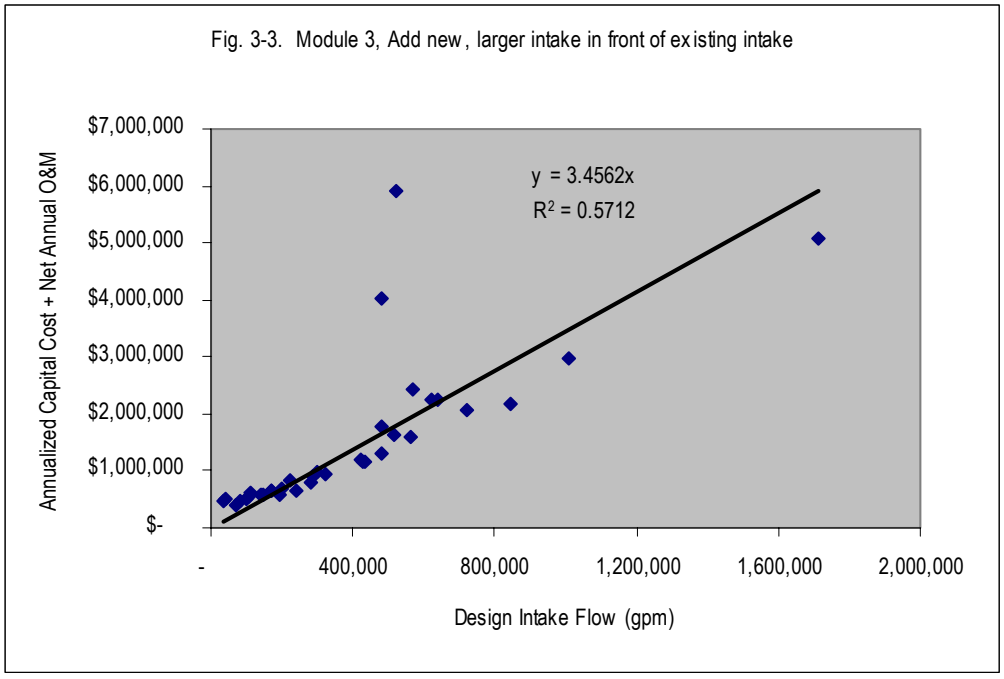


Fig. 3-4. Module 4, Add passive fine-mesh screen near shoreline w/ 1.75 mm mesh

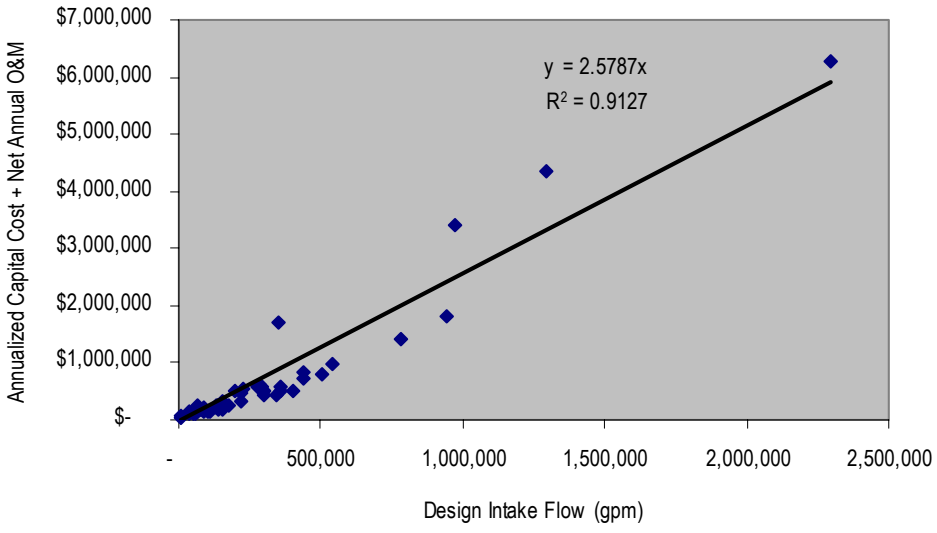


Fig. 3-5. Module 5, Add fish net barrier system

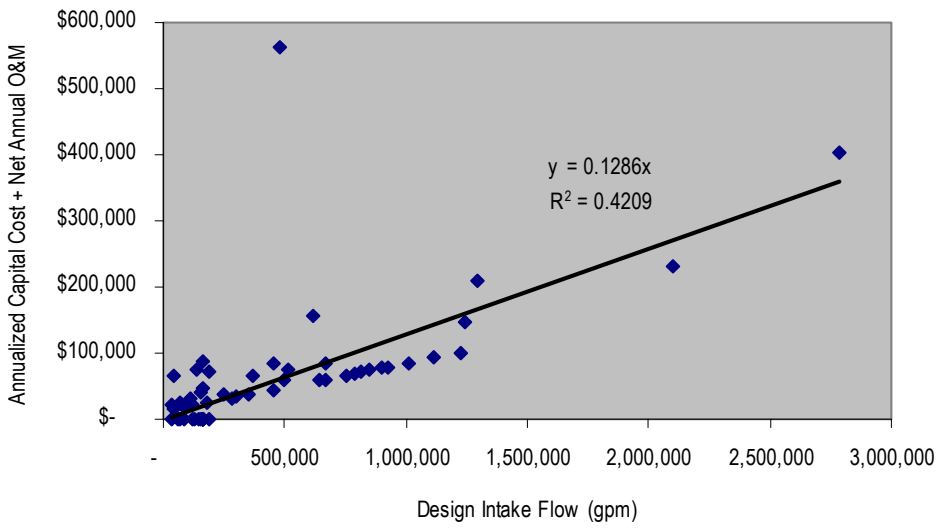


Fig. 3-6. Module 6, Add Aquatic filter barrier system

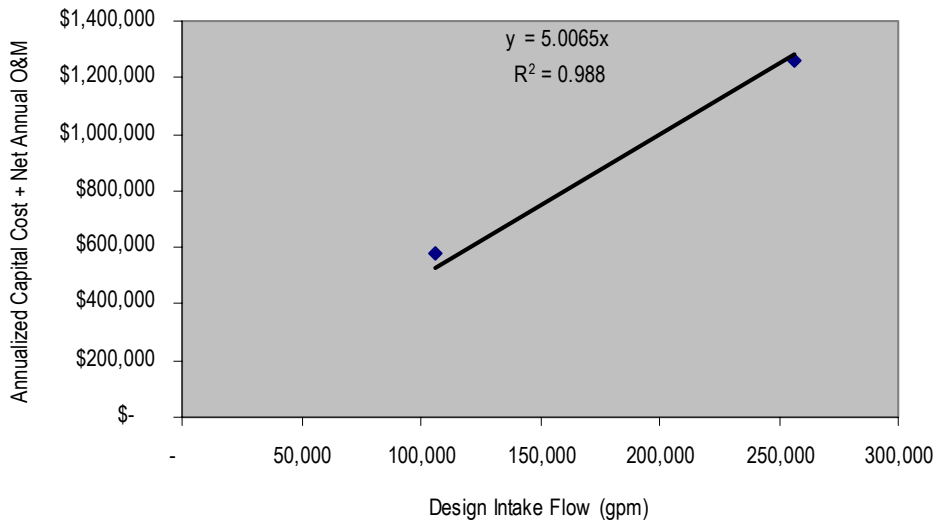


Fig. 3-7. Module 7, Relocate to submerged offshore w/ passive fine-mesh screen inlet & 1.75 mm mesh

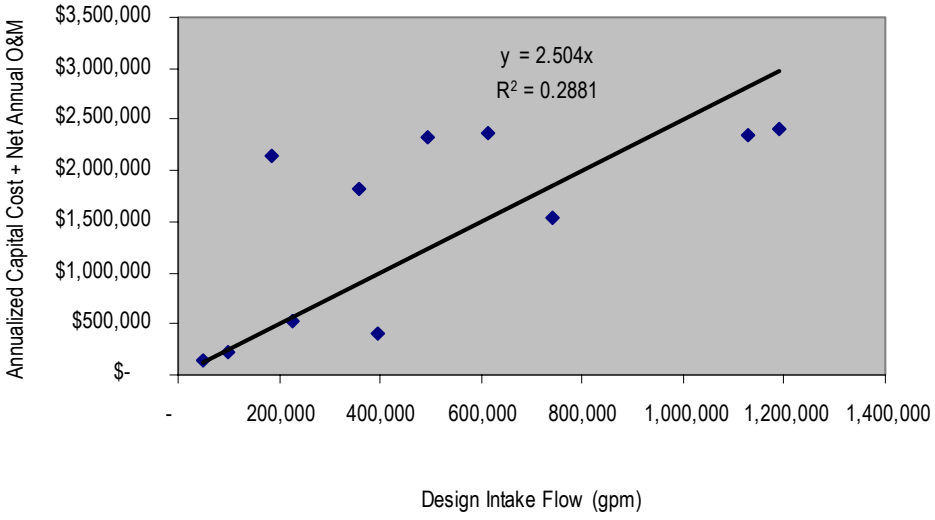


Fig. 3-8. Module 8, Add velocity cap inlet to offshore intake

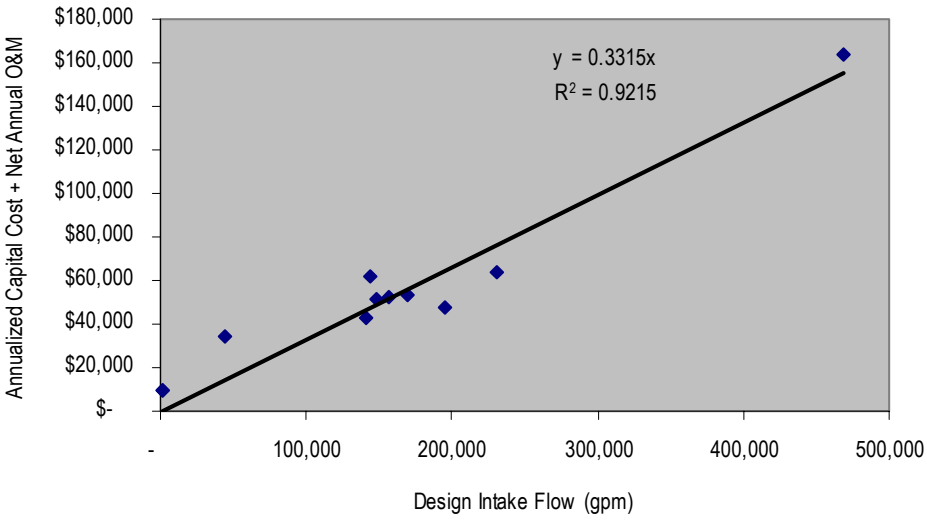


Fig. 3-9. Module 9, Add passive fine-mesh screen to offshore intake w/ 1.75 mm mesh

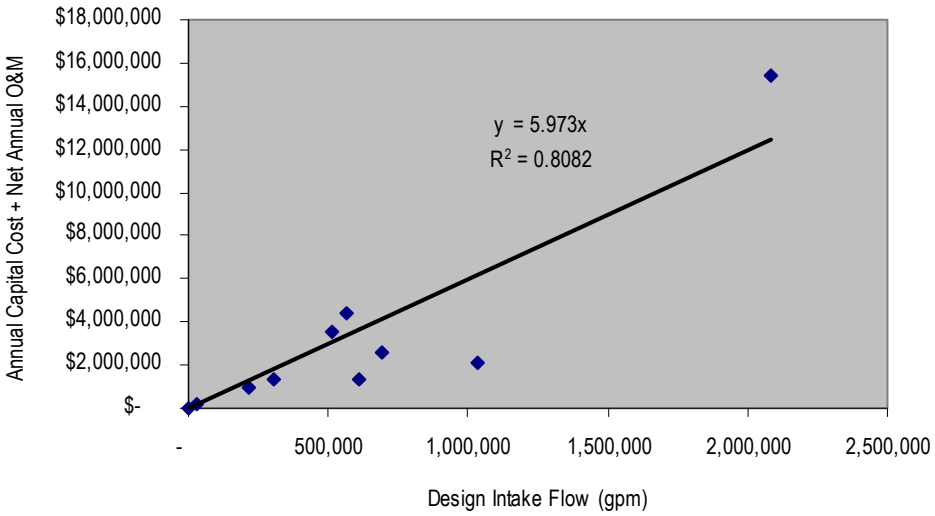


Fig. 3-10. Module 11, Add dual-entry, single-exit traveling screens (with fine- mesh)

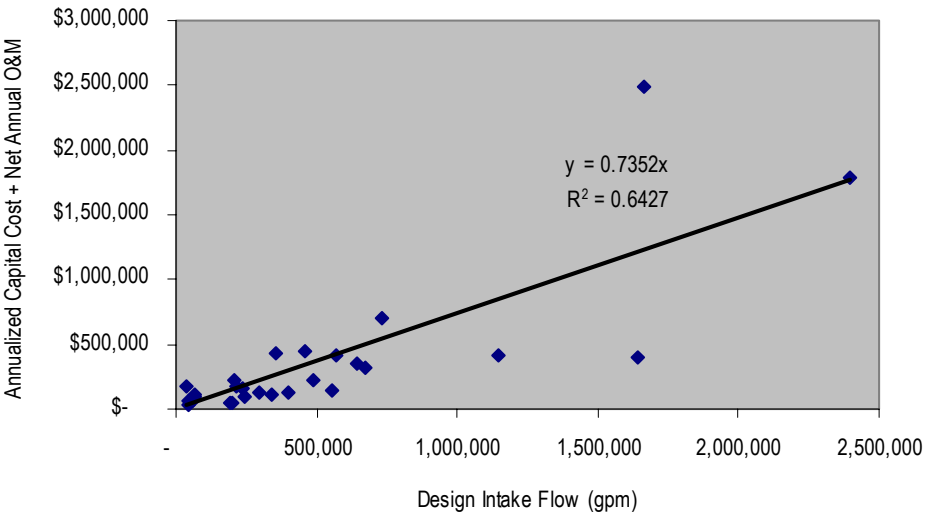


Fig. 3-11. Module 12, Add passive fine-mesh screen near shoreline w/ 0.76 mm mesh

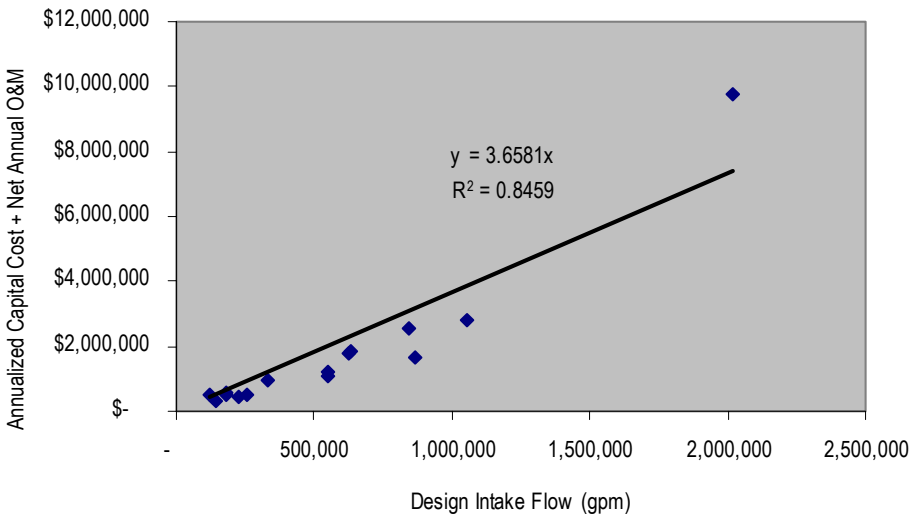
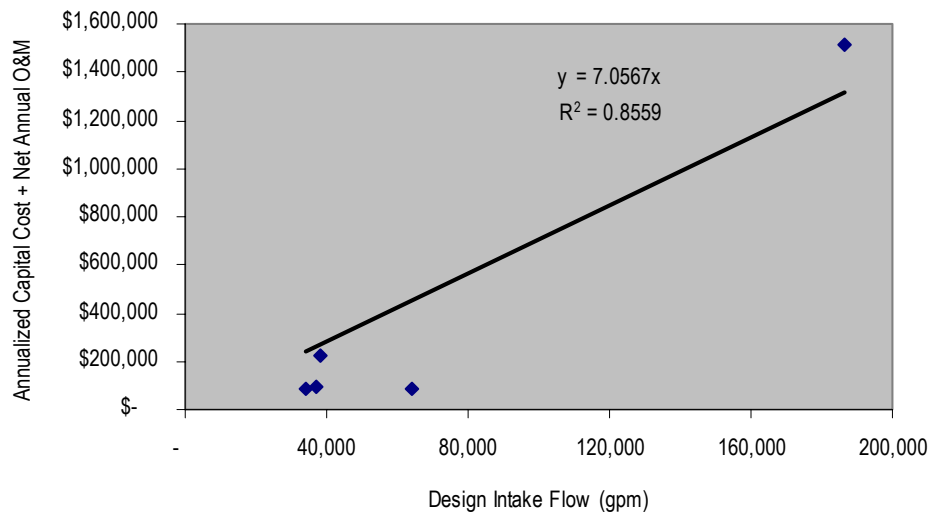


Fig. 3-12. Module 13, Add passive fine-mesh screen to offshore intake w/ 0.76 mm mesh



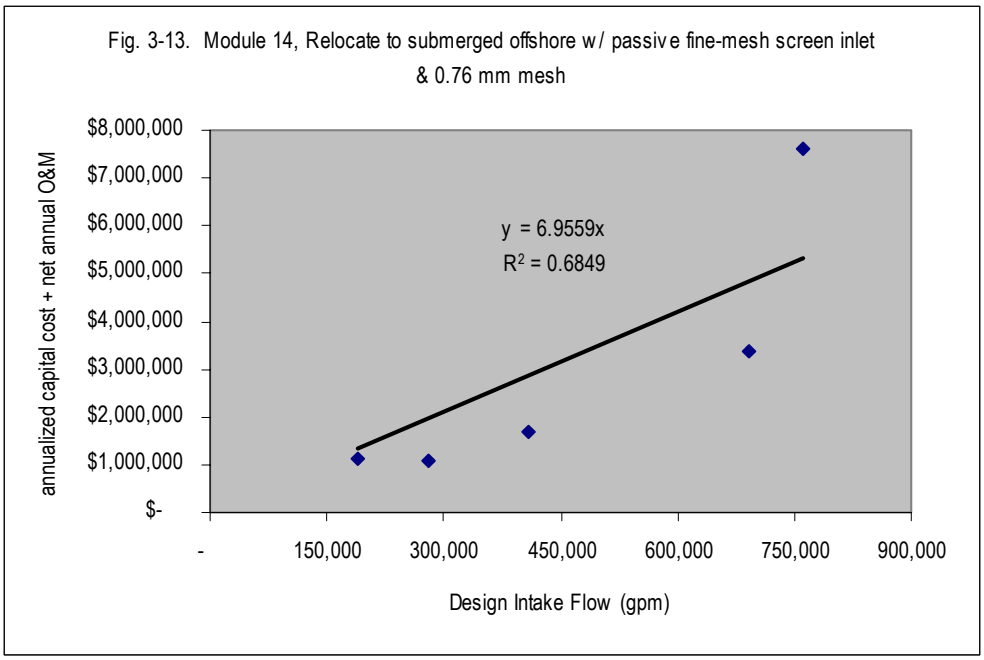


Fig. 3-13. Module 14, Relocate to submerged offshore w/ passive fine-mesh screen inlet & 0.76 mm mesh
annualized capital cost + net annual O&M
$8,000,000
$7,000,000
$6,000,000
$5,000,000
$4,000,000
$3,000,000
$2,000,000
$1,000,000
$-
y = 6.9559x
R2 = 0.6849
-
150,000
300,000
450,000
600,000
750,000
900,000
Design Intake Flow (gpm)