



**RIC 2010
Practical Aspects of
Decommissioning Funding
Assurance**

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March 9, 2010

1



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2



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3



Fund Status Report Information

- Minimum under § 50.75 (b) and (c)
 - BLS data in NUREG-1307 is only an example
 - Use December data of reporting year
 - If using a site-specific estimate, then report it as well

4



Fund Status Report Information (continued)

- Amount accumulated
 - Market value of securities, not basis
 - Full amount, even if it exceeds the minimum requirement
 - Do not include funds held in accounts not listed in NRC regulations – “refundable escrows”
 - Do not include spent fuel or non-radiological funds

5



Fund Status Report Information (continued)

- Schedule of annual amounts remaining to be collected
 - Authorized for collection in rates or non-bypassable charges
 - Required to be deposited in external sinking fund under contractual obligation
 - Identify source of collections

6



**Fund Status Report
Information (Continued)**

- Rates of cost escalation, earnings, other factors used in funding projections
 - Identify “other factors” if used
- Contracts under 50.75(e)(i)(v)
 - Must be identified
 - Report amounts to be collected

7



**Fund Status Report
Information (Continued)**

- Modification to method
 - Adding or eliminating funding methods
 - Changing existing methods (examples)
 - Adding refundable escrow
 - Changing terms of contractual obligations
- Material change to trust agreement
 - Includes trustee name change

8



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9



**Practical Aspects of
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**-Calculations-
&
-Analysis-**

10



Regulations

- 10 CFR 50.75
- 10 CFR 50.82
- 10 CFR Part 30, App. A
- 10 CFR 50.2

11



Guidance

- NUREG 1307, Rev 14 (TBD)
- Reg Guide 1.159, Rev 2 (TBD)

Additional Reference

Department of Labor Statistics
<http://data.bls.gov/cgi-bin/srgate>

12



Other Definitions

- Electric Utility Licensee
- Non-Electric Utility Licensee
- NRC Decontamination
- Spent Fuel
- SAFSTOR
- DECON

13



Biennial Decommissioning Funding Reports

1. Minimum Decommissioning Fund Required (Target)
2. Amount \$ Accumulated (Actual)
3. Schedule of Future Annuities

14



Biennial Decommissioning Funding Reports (Continued)

4. Estimated Escalation & Earning Rate
5. Contractual Obligations
6. Modification of Method
7. Changes to Trust Agreements

15



1. Minimum Decommissioning Funding Formula, "Target"

10 CFR 50.75(c)(1)(i) & (ii) = "1986\$"

Must Update to Current Year "\$"

10 CFR 50.75(c)(2)

- NUREG – 1307, Rev. XX
- Department of Labor Statistics

16



2. "Actual" Balance as of Dec. 31st, 2010

Cumulative Total

Market Value

After Pending Tax

Dedicated to NRC Requirements *only*

-Volunteer Other Fund Balances-

- Subject to "Spot Checks"

17



3. Scheduled Annuities

Total per Year

For each Year Anticipated

Dedicated to NRC Requirements *only*

18



4. Escalation & Earnings Rate:

THESE ARE FOR FORECASTING

Escalation (inflation)
Average per Year for Duration of License

Earnings (Interest)
Average per Year for Duration of License

19



4a. 2.00% Real Rate of Return

Standard Forecasting Assumption

Nominal Interest Rate
(minus) Taxes
(minus) Inflation
(minus) Management Fees

THIS IS FOR FORECASTING

20



5. Contractual Obligations

10 CFR 50.75(e)(2)(c)(v)
Estimate the yearly value
Reflects dedicated dollars to NRC
requirements

THIS IS FOR FORECASTING

21



6. Any Modifications to the Method

Include change in the chosen method as indicated from previous Biennial Decommissioning Funding Report

22



7. Any Modifications to the Trust Agreement

Include any change* in the Trust Agreement since the previous Biennial Decommissioning Report

* Including Name Changes

23



What does the NRC staff do with this information?

The Analysis is to find for Decommissioning Funding Assurance

LIC 205, Rev. 3 (TBD)

24



NRC Staff Analysis

1. If "Actual \$" \geq "Target \$," **STOP**
2. If "Actual \$" $[F/P(i,n)] \geq$ "Target \$," **STOP**
3. If "Actual \$" $[F/P(i,n)] +$ "Annuity \$" $[F/A(i,n)] \geq$ "Target \$," **STOP**
4. If {"Actual \$" $[F/P(i,n)] +$ "Annuity \$" $[F/A(i,n)]$ } + $\{1/2 \text{ \$\$ } [F/P(2\%,7) - 1]\} \geq$ "Target \$," **STOP**
5. Plus Any Additional Credits Available...

25



Minimum Decommissioning Funding Formula "Target"

Aleutian 1 is a PWR rated at
3,700 MWt
\$105 Million $[.065L+.13E+.22B]$
 $[.65(2.23)+.13(2.746)+.22(5.153)]$
 $[1.450+.357+1.134]$
\$105 Million $\times 2.941 =$ \$308.8 Million
In 2008\$ @ 0.0% = 2025\$

26



"Actual" Balance As of December 31, 2008

- Aleutian 1 states Actual Balance = \$137.3 Million
- $n = 17$ years left on License
- $i = 2.00\%$ Real Rate of Return
- \$137.3 Million $[F/P(i,n)]$
- \$137.3 Million $[1.400241]$
- **\$192.3 Million in 2025\$**

27



Scheduled Annuities

- Aleutian 1 states Annuity of \$6 Million
- $n = 17$ years left on License
- $i = 2.00\%$ Real Rate of Return
- \$6.0 Million $[F/A(i,n)]$
- \$6.0 Million $[20.012071]$
- **\$120.1 Million in 2025\$**

28



Decommissioning Funding Assurance

- **$F/P = \$192.3$ Million in 2025\$**
- **$+ F/A = \$120.1$ Million in 2025\$**
- **$= \$312.4$ Million**
- "Target" \$308.7 Million
- Positive Difference of \$3.7 Million**

29



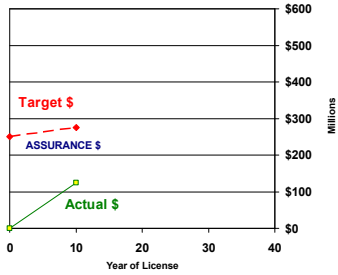
Of further note...

The difference between
 "Minimum Decommissioning Funding
 Formula"
 And
 "Site Specific Study"

30



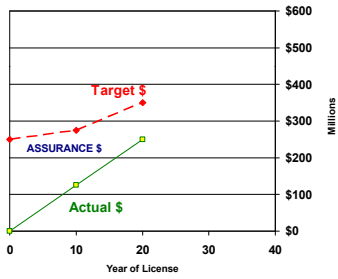
Decommissioning Funding Assurance Over Time



31



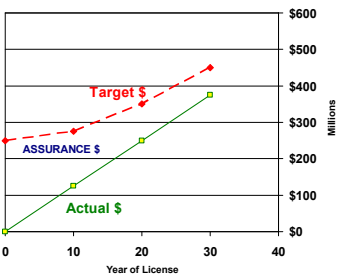
Decommissioning Funding Assurance Over Time



32



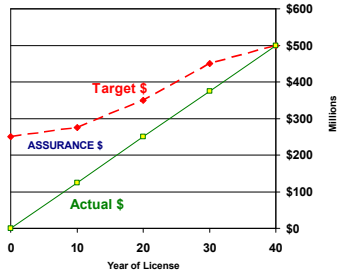
Decommissioning Funding Assurance Over Time



33



Decommissioning Funding Assurance Over Time



34
