January 27, 2000

Mr. Felix M. Killar, Jr.
Director
Material Licensees & Nuclear Insurance
Nuclear Energy Institute
1776 I Street, NW
Washington, DC 20006

Dear Mr. Killar:

We would like to thank you for your comments in response to the staff request in the Federal Register (FR) notice (64 FR 28014) for stakeholder's views on the use of a separate General Fund appropriation. The request also asked for information to assist us in development of more accurate cost estimates for funding activities associated with formerly license sites. Enclosed are copies of the Commission paper (SECY-99-193, dated July 26, 1999) and the Staff Requirements Memorandum (SRM) dated August 25, 1999.

Again, we would like to thank you for participating in the NRC process to strengthen the decisions made by the agency.

Sincerely,

/R by Frederick C. Combs Acting For/

Paul H. Lohaus, Director
Office of State Programs

Enclosures:
As stated

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DATE	01/27/2000		01/27/2000		01/27/2000					

OSP FILE CODE: SP-D-1

July 26, 1999 SECY-99-193

FOR: The Commissioners

FROM: William D. Travers /s/
Executive Director for Operations

SUBJECT: COST ESTIMATES FOR COMPLETION OF FORMERLY TERMINATED NRC LICENSED SITES PROGRAM

PURPOSE:

To respond to Staff Requirements Memorandum (SRM) SECY-98-273 on funding completion of remaining Formerly Licensed Sites (former sites) in both Agreement and Non-Agreement States.

BACKGROUND:

SECY-98-273, SECY-98-011, SECY-97-188 and their associated SRMs provide background on previous actions relating to former sites. SRM-SECY-98-273 approved continued Agreement State jurisdiction over former sites and requested the development of a grant program to make funds available to Agreement States for file reviews and remediation in certain cases.

The SRM directed several actions:

1. Re-evaluate the cost estimates for completion of Agreement State sites in view of the much higher known costs for cleaning up Site Decommissioning Management Plan (SDMP) sites.

Contact: Dennis Sollenberger, OSP
301-415-2819

Kevin Hsueh, OSP
301-415-2598

2. Communicate further with the Agreement States to obtain better cost estimates.

3. Include funding for file reviews and site remediation, if necessary, of sites located in non-Agreement States in the revised cost estimates.

4. Pursue a separate appropriation from the General Fund to establish a fund for use through grants to assist in the remediation of former sites when the original owner or successor cannot be found or does not have sufficient funds.

5. Seek stakeholder views before pursuing a General Fund appropriation.

6. Provide the Commission with a clear basis for a General Fund appropriation request prior to submitting it to Congress for FY 2001 and FY 2002, and a decision framework that describes how NRC will allocate the appropriated funds to individual Agreement States.

7. Develop a decision framework for providing funds to individual Agreement States to ensure a relatively fair and equitable allocation of available funds.

8. Seek to resolve NRC/Agreement State jurisdictional issues over regulatory responsibility and evaluate possible approaches for returning identified sites to NRC jurisdiction. (This issue will be addressed in a separate Commission paper, to be submitted to the Commission in September 1999, and will not be addressed further in this paper.)

DISCUSSION:

Items 1, 2 and 3: Cost Estimates for Completion of Formerly Licensed Sites Program:

Through All Agreement States letter (SP-99-016, March 22, 1999), staff requested additional cost data from the Agreement States by April 30, 1999. Five States responded. One State (North Carolina) commented on the program but did not provide cost data. Three States (Colorado, Illinois, and Texas) provided copies of previously submitted data. One State (Washington) provided data based on two file reviews. A summary of this information is presented in Attachment A.

Staff also reviewed cost estimates for former sites and SDMP sites for which the staff has cost information (11 former sites, 33 SDMP sites). This information is summarized in Attachment B. The average cost for former sites, based on this limited data, is $0.43M. The average cost for SDMP sites, based on current estimates, is $9M. The cost estimate for one former site is in the range of cost estimates for SDMP sites. Otherwise, the costs to remediate former sites are significantly less. Staff believes the singular reason for this difference is that former sites went through decommissioning when their licenses were terminated and, therefore, the sites should not have large quantities of residual radioactive material remaining. The majority of SDMP sites did not have any significant decommissioning prior to their designation as an SDMP site.

File Review and Initial Site Survey Costs

Based on review of 31,482 former site files, Oak Ridge National Laboratory (ORNL) identified 675 loose material files and 564 sealed source files for follow-up review by NRC or the Agreement States. Tables C.1, C.2, and C.3, respectively, in Attachment C list for Agreement and non-Agreement States the number of loose material and sealed source sites that either: (1) have been closed, based on file review and initial site surveys when necessary, (2) are pending review, or (3) have been confirmed as contaminated.

In the Agreement States, 70 loose material sites and 64 sealed source sites remain and require file review. In addition, four sites have been confirmed as being contaminated and will require site characterization and remediation.

In the non-Agreement States, there remain 54 loose material sites and 196 sealed source sites. In addition, fifteen sites have been confirmed as contaminated and require characterization and remediation. Tables C.4 and C.5 in Attachment C identify the number of sites pending file review in both Agreement and non-Agreement States.

To provide a basis to determine the cost estimates to complete pending reviews for sites in Agreement States, staff developed a labor rate for completing the remaining file reviews and initial site surveys to either close the file, or confirm that the site is contaminated and requires characterization and remediation. The calculations are presented in Attachment D. Based on application of these labor rates, staff estimates $0.6M would be needed to fund completion of file reviews and initial site surveys. This action will lead to either closure of the file where no contamination exists or identification of sites that have elevated radiation levels and may need remediation.

For sites in non-Agreement States, staff used the current budgeted level of 1.6 FTE (or $0.2M) for completion of pending file reviews and initial site surveys. This would bring the total for file review and initial site surveys to $0.8M.

Site Characterization and Remediation Costs

For sites identified as contaminated, and potentially requiring remediation, the next regulatory action would be to require the site owner to conduct site characterization to identify the extent of contamination present and remediation needed to release the site for unrestricted use. Until characterization is complete, a site specific cost estimate is not possible. Therefore, since site characterization has not been completed for the remaining Agreement and non-Agreement States' sites, staff estimated an average cost per site of $0.43M to characterize and remediate the remaining sites. Attachment B contains the basis for this estimate.

The number of sites to which the cost estimate might apply was also estimated. Based on staff experience with other former sites, the staff estimates that there will be a total of six former sites in the Agreement States that will need financial assistance to complete characterization and remediation at an average cost of $0.43M for a total cost of about $2.6M. The staff estimates that there will be four sites under NRC jurisdiction that will need financial assistance to complete

characterization and remediation at an average cost of $0.43M for a total of $1.7M. This would bring the total cost for remediating former sites to $4.3M. To date, for the sites within NRC jurisdiction that have been remediated, the current site owners or previous licensees have paid for the remediation costs for their respective sites. The regulatory oversight cost to complete clean up of the contaminated sites is estimated to be $0.1M for the Agreement States (See Attachment D). NRC regulatory oversight costs are not explicitly identified since NRC conducts this effort as part of its decommissioning program and does not separate out these resources.

Total Cost Estimate For the Formerly Licensed Sites Program

Staff has summarized the program costs for FY 2001-2002 in the table below. The costs for non-Agreement State activities are not included in the General Fund appropriation request discussed later in this paper.

	Agreement State Sites ($M)	Non-Agreement State Sites ($M)	Total ($M)
File review and initial survey	$0.6M	0.9 FTE in FY 2001 $0.1M 0.7 FTE in FY 2002 $0.1M 1.6 FTE $0.2M	$0.8M
Site characterization and remediation	$2.6M	$1.7M	$4.3M
Regulatory oversight	$0.1M	Work done through NRC decommissioning program	$0.1M
Subtotal	$3.3M	$1.9M	$5.2M
Administer grant program in Agreement States	0.75 FTE in FY 2001 $0.1M 0.75 FTE in FY 2002 $0.1M 1.5 FTE $0.2M	0	$0.2M
Grand Total	$3.5M	$1.9M	$5.4M

Items 4, 5, 6, and 7: Pursuing a Separate General Fund Appropriation:

Stakeholder Views

The staff in a Federal Register (FR) notice (64 FR 28014) requested stakeholders' views and comments on the use of a separate General Fund appropriation as well as information to assist in development of more accurate cost estimates. The staff also requested comments on the approach of administering the funds to the Agreement States through a grant program. In response to the FR notice, the staff received three responses: two from Agreement States (Illinois and Maine) and one from an industry group (Nuclear Energy Institute (NEI)). The comments and responses are presented in Attachment E.

In summary, the commenters made the following major comments. Two commenters agreed with the proposal as “the only fair and equitable method of dealing with these sites.” The other commenter disagreed with the proposal mainly on the basis that the proposal is prospective and does not deal with reimbursement of costs already incurred by the Agreement States that took the initiative to address and close former sites on their own. One commenter suggested that NRC use a phased approach to funding site activities. One commenter stated that the 25 mrem /year dose standard can be used as guidance, but it should not be the cleanup standard. Licenses terminated under earlier standards should be evaluated against the standard in effect at the time of license termination.

Separate General Fund Appropriation

The staff has prepared draft language (Attachment F) for appropriation of $1.65M from the General Fund for the purposes of funding the former sites program for FY 2001 through grants from the NRC. These funds are to be held until expended for the former sites program or returned to the U.S. Treasury. The relationship of this request to the current budgeted resources is discussed in the Resource section of this paper. A similar appropriation would be included in the FY 2002 budget request.

Although staff has estimated the cost of cleaning up the sites located in non-Agreement States, the proposed legislative language found in Attachment F would only appropriate funds for the cleanup of Agreement State sites. Congress has not enacted (nor has the Commission sought) legislation which would authorize the NRC itself or an NRC contractor acting under the direction and on behalf of the NRC to remediate sites in non-Agreement States. In this paper, the staff does not set forth nor analyze the issues that would need to be considered before the Commission could propose legislation aimed at facilitating the cleanup of sites in non-Agreement States.

Grant Program

Staff has outlined a grant program which entails three phases for allocation of funds: (1) completion of the file reviews and initial site surveys to determine if there is any contamination requiring remediation, (2) characterization of the identified contaminated sites, and (3) remediation of contaminated sites. The first two phases would be administered based on the number of sites in a State and the State’s labor rate and site specific cost for each site. The funding for remediation would be issued based on a prioritization of the sites. Staff would propose that the Agreement States be given a specific time frame under which they could choose to participate in the funding program. This would enable staff to approve the three phases of the funding program. In particular, this would enable the awarding of the remediation funds with consideration of the risk ranking of the sites, if appropriated funds are not sufficient. These phases are discussed in more detail in Attachment G. The grant program would be administered in accordance with Management Directive 11.6, “Financial Assistance Program.” The detailed forms and implementing procedures for the grant program would be developed upon Commission approval of this approach for the grant program and approval of funding by Congress. Grants would only cover remediation efforts taking place after the enactment of the appropriation legislation.

RESOURCES:

Staff estimates that a total of $5.4M will be required to complete the formerly licensed sites program in Agreement and non-Agreement States over a 2-year period. Of this amount, $3.3M and 1.5 FTE ($0.2M) are required for Agreement States, and $1.7M and 1.6 FTE ($0.2M) are required for non-Agreement States.

NRC will request funding each year (FY 2001 and FY 2002) from the General Fund appropriation to support the grant program for Agreement States only. The additional staff effort (0.75 FTE each fiscal year) is not included as part of the General Fund appropriation request.

The FY 2001 budget request includes a planning wedge of $2M for funding assistance to Agreement States to complete the former sites program. The 0.5 FTE (0.25 for OSP and 0.25 for ADM) to administer the grant program was to be accomplished within current resources. The same planning wedge assumptions ($2M and 0.25 FTE (OSP) and 0.25 FTE (ADM)) are also identified in FY 2002. After evaluating this program in more detail, staff believes the FTE needed in FY 2001 to implement all three phases will take a level of effort higher than originally anticipated. Staff estimates an FTE level of 0.75 FTE per year instead of 0.5, with the 0.25 increase being needed by OSP to administer the Agreement State portion of this program. This level of effort is slightly above the existing resources noted above.

Staffing resources for NRC to conduct file reviews and regulatory oversight activities for non-Agreement State sites are included in the current fee-based budget (0.9 FTE in FY 2001 and 0.7 FTE in FY 2002). Funds needed to facilitate the cleanup of sites in non-Agreement States ($1.7M) are not included in the budget and will not be requested as part of the General Fund appropriation.

PROGRAM	FY 2001		FY 2002	
	$M	FTE	$M	FTE
Agreement State Former Sites (OSP, ADM)	1.65	0.75	1.65	0.75
Non-Agreement State Sites Waste Management (NMSS)		0.9		0.7

COORDINATION:

The Office of General Counsel has no legal objection to this paper. The Office of the Chief Financial Officer has reviewed this Commission paper for resource implications and has no objections.

RECOMMENDATIONS:

The staff recommends that the Commission:

Approve:

1. Submittal of the General Fund appropriation in Attachment F to the Office of Management and Budget as part of the FY 2001 budget request.

Note:

1. Upon Congressional approval of the appropriation request, staff will initiate development of the detailed forms and procedures for implementation of the grant program described in this paper.

2. Upon Congressional approval, the staff will initiate coordination with the Agreement States on the information needed to be submitted for the staff to conduct the ranking of the sites for remediation funding priority.

William D. Travers
Executive Director
for Operations

Attachments:
A. State Responses to All Agreement States Letter SP-99-016
B. Re-evaluation of Remediation Cost Estimates
C. Potential Former Sites That Need Funding Assistance
D. Cost Estimates for File Reviews, Initial Surveys, and Regulatory Oversight
E. FR Notice and Comment Summary
F. Draft Grant Appropriation
G. Grant Program Summary and Priority Logic

Attachment A

State Responses to All Agreement States Letter SP-99-016

All Agreement State letter (SP-99-016), sent on March 29, 1999, requested cost estimate information from the Agreement States for potential funding assistance for formerly licensed sites. The letter, included in the Attachment, requested a response by April 30, 1999. Five States: Colorado, Illinois, North Carolina, Texas, and Washington responded to the request. Their responses are summarized below.

A. Colorado

Colorado provided estimates of the costs to complete part of closeout activities for eight formerly licensed sites located in Colorado. Colorado noted that four former mining sites may require significant decommissioning expenses that were not included in this regulatory cost estimate. Colorado stated that the costs were significant enough to preclude them from initiating work until funding was provided. Tables A.1 and A.2 list cost estimate information, submitted by Colorado, for loose material sites and sealed source sites.

Table A.1 Estimated Costs for Loose Material Sites

Type of Action	# of Actions	Cost per Action ($)	Total Cost ($)
File Reviews	4	15,000	60,000
Initial Site Surveys	4	18,000	72,000
Source Characterization	3	20,000	60,000
Site Remediation	3	TBD	TBD
Regulatory Oversight for Site Char. & Remediation	3	15,000	45,000
Other Costs (Disposal, etc.)	3	TBD	TBD

Table A.2 Estimated Costs for Sealed Source Sites

Type of Action	# of Actions	Cost per Action ($)	Total Cost ($)
File Reviews	4	476	1,904
Site Surveys	2	4,000	8,000
Source Disposal	TBD	TBD	TBD
Regulatory Oversight	TBD	TBD	TBD

B. Illinois

Illinois stated it had closed out all 55 formerly licensed sites located in Illinois (21 loose material and 34 sealed source sites). They indicated the cost to Illinois to complete this work was $48,650. Illinois also stated that they would like to be reimbursed for work completed if funding is obtained. (See Attachment E, FR Notice and Comment Summary, for further details on Illinois comments.)

C. North Carolina

North Carolina has closed three sites and does not intend to pursue recovery of the file review expenses. No specific cost information was provided.

D. Texas

Texas has reviewed all 22 files and closed about 50% of the files. The estimated cost to close the remaining sites is $30K assuming no significant remediation is required. With funding assistance, TX would expedite the work on these sites.

E. Washington

Washington has reviewed two sealed source files. They expended $3600 to close both files. Given that the files dealt with related activities, Washington recommended that the estimated cost for each independent file review should be $3,600.

DATED: MARCH 22, 1999 SIGNED BY: PAUL H. LOHAUS

ALL AGREEMENT STATES
MINNESOTA, OHIO, OKLAHOMA, PENNSYLVANIA, WISCONSIN

PROGRAM MANAGEMENT INFORMATION: INFORMATION REQUEST FOR POTENTIAL FUNDING ASSISTANCE FOR FORMERLY LICENSED SITES (SP-99- 016)

I am writing to request your assistance in obtaining supporting information on the costs to conduct file reviews; site surveys; and perform site characterization and remediaiton, if necessary, for formerly NRC-licensed sites in Agreement States. The enclosed March 15, 1999 Staff Requirements Memorandum (SRM) and November 20, 1998 Commission Paper SECY-98-273, "Potential Funding Assistance for Agreement States for Closure of Formerly Terminated NRC Licenses" (Enclosures 1 and 2) provide further information regarding this request.

Specifically, the Commission has directed staff to develop a grant program for Agreement States, supported by a separate appropriation from the General Fund, to fund remediation of formerly NRC-licensed sites when the original owner or successor cannot be found or does not have sufficient funds. Prior to submitting a request to Congress, the Commission has asked staff develop a clear basis for the request and decision framework to describe how NRC would allocate funds to individual Agreement States. Therefore, we ask that you provide the information set out in Enclosure 3 for the remaining sites in your State that have not been closed out to date. Other information that may assist in justifying a reasonable cost estimate should also be provided. For example, the Commission has asked that earlier cost estimates be re-evaluated in view of the much higher known costs for cleaning up Site Decommissioning Management Plan Sites. The lack of sufficient supporting information to justify the cost estimates may jeopardize the Commission's ability to obtain Office of Management and Budget (OMB) approval for a funding request. Finally, as stated in the SRM, the Commission has asked that we obtain stakeholder (e.g., the States, industry, Nuclear Energy Institute, and citizen groups) views on this proposal. We plan to request stakeholder views separately. However, if you have comments at this time, we would appreciate receiving them.

We would appreciate your response to this letter by April 30, 1999. (The OMB voluntary collection burden estimate is contained in Enclosure 3).

Please contact me or the individual below if you have any questions.

POINT OF CONTACT: Dennis Sollenberger INTERNET: DMS4@NRC.GOV
TELEPHONE: (301) 415-2819 FAX: (301) 415-3502

Paul H. Lohaus, Director
Office of State Programs

Enclosures:
As stated

Attachment B

Re-evaluation of Remediation Cost Estimates

Cost estimates for Formerly Licensed Sites (former sites) and Site Decommissioning Management Program (SDMP) sites where staff has cost information were reviewed. A total of 34 former sites have been identified as contaminated. Some of them have been remediated and the files are closed. Currently 19 of them still remain open. The staff was able to obtain cost estimates on 11 of these sites. For SDMP sites, the staff was able to obtain cost estimate data on 33 out of 39 listed sites. Table B.1 lists cost data for a total of 42 former sites and SDMP sites. (Note: two former sites were added to the SDMP site list; therefore, there is an overlap area in Table B.1 and reason for the total of 42 sites.) The estimated cleanup cost ranges from $1K to $1,000,000K. Estimates are based on either licensee submitted funding plans or staff estimates by NRC project managers. Figure B.1 shows the cost estimate for each site based on the data from Table B.1. Generally, the data show that SDMP sites have much higher cleanup costs than former sites.

Figure B.2 shows the estimated cost versus the ORNL score for each site and was prepared to see if there is any correlation between these two factors.[1] In this Figure, there is one site which has an ORNL score of 115 with a cost estimate of $5,000K. There is also one site which has an ORNL score more than 2000; however, the estimated cleanup cost for that site is $1K. Since there are only eleven data points available and there does not appear to be any significant relationship between the cost and the score, the staff concluded that use of the ORNL scores as references to predict cleanup costs was not appropriate.

The staff determined an average cleanup cost for former sites by averaging the estimated cleanup cost data for available sites. Figure B.3 shows the average costs for both former sites and SDMP sites. Staff determined that the average cost to clean up an SDMP site is $45,500K compared to $849K for a former site. The average cleanup cost drops from $45,500K to $9,000K for SDMP sites if the top 10% "most costly" sites are excluded. The corresponding cost for the former sites is $434K per site.

The one former site that is excluded has an estimated cleanup cost of $5,000K. This site was a China Company which used source material in manufacturing glazed ceramic tableware. After completing decontamination and decommissioning efforts, the licensee found that some building

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1. Oak Ridge National Laboratory (ORNL) has reviewed relevant information from terminated license files and analyzed it through a computerized evaluation system to estimate the probability and magnitude of site contamination from loose materials not adequately accounted for in license files (see NUREG/CR-6592). This system also examines the potential risk from sealed sources not adequately accounted for in the license files. A score is assigned to licenses that do not have adequate documentation of site cleanup and materials disposition, to provide a ranking of the potential hazard and a priority relative to other licenses. All files of terminated licenses with scores above a certain level (one and above for sealed source files, five and above for loose material files) are referred to the regions or the States for appropriate follow-up.

floor areas and some heavy equipment have elevated fixed contamination that could not be remediated to the current criteria for release for unrestricted use. The high cleanup cost was estimated by assuming that all of the equipment with fixed contamination will be treated as radioactive waste. The licensee is seeking NRC's approval for a variance on release of specified equipment and building floor areas from the current release criteria so that cleanup costs can be significantly reduced. In the remaining unreviewed files, there are no sites or facilities where similar manufacturing processes were carried out. Based on this evaluation, the staff estimates that a reasonable cleanup cost for each former site is $434K.

Table B.1 Available Cost Estimates for Contaminated Former Sites and SDMP Sites

Site		ORNL Score	Est. Decom. Cost		
			$K	$M	$B
A	Former Sites	1179		1M	
B		387	250K		
C		258	100K		
D		56.4	100K		
E		23	100K		
F		115		5M	
G		2021	1K		
H		2021		1.25M	
I		789	289K		
J		1423	750K		
K		14	500K		
L	SDMP Sites	NA		1.25M	
M				6.5M	
N					1B
O				11M	
P				10M	
Q			250K		
R			250K		
S			500K		
T				7.5M	
U				7.5M	

Table B.1 Available Cost Estimates for Contaminated Former Sites and SDMP Sites (Cont.)

Site		ORNL Score	Est. Decom. Cost		
			$K	$M	$B
V				40M	
W				2M	
X				4.5M	
Y				5M	
Z				5M	
AA				17M	
AB				18M	
AC				5M	
AD				10M	
AE	SDMP	NA	175K		
AF	Sites			4.5M	
AG				1.5M	
AH				5M	
AI				1M	
AJ				2M	
AK				150M	
AL			250K		
AM				81M	
AN				5M	
AO				65M	
AP				30M	

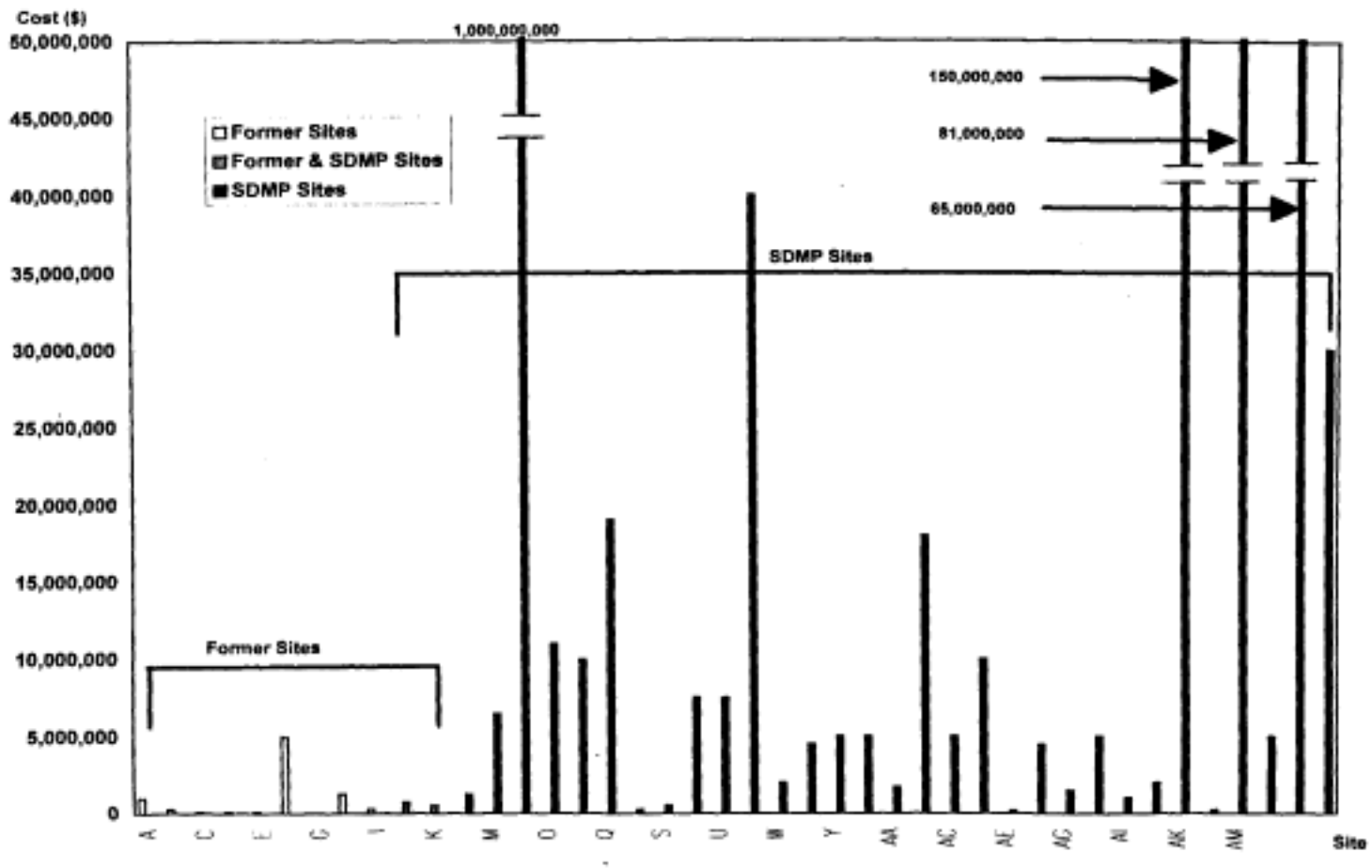

Figure B.1 Decommissioning Cost Estimates for Former Sites and SDMP Sites

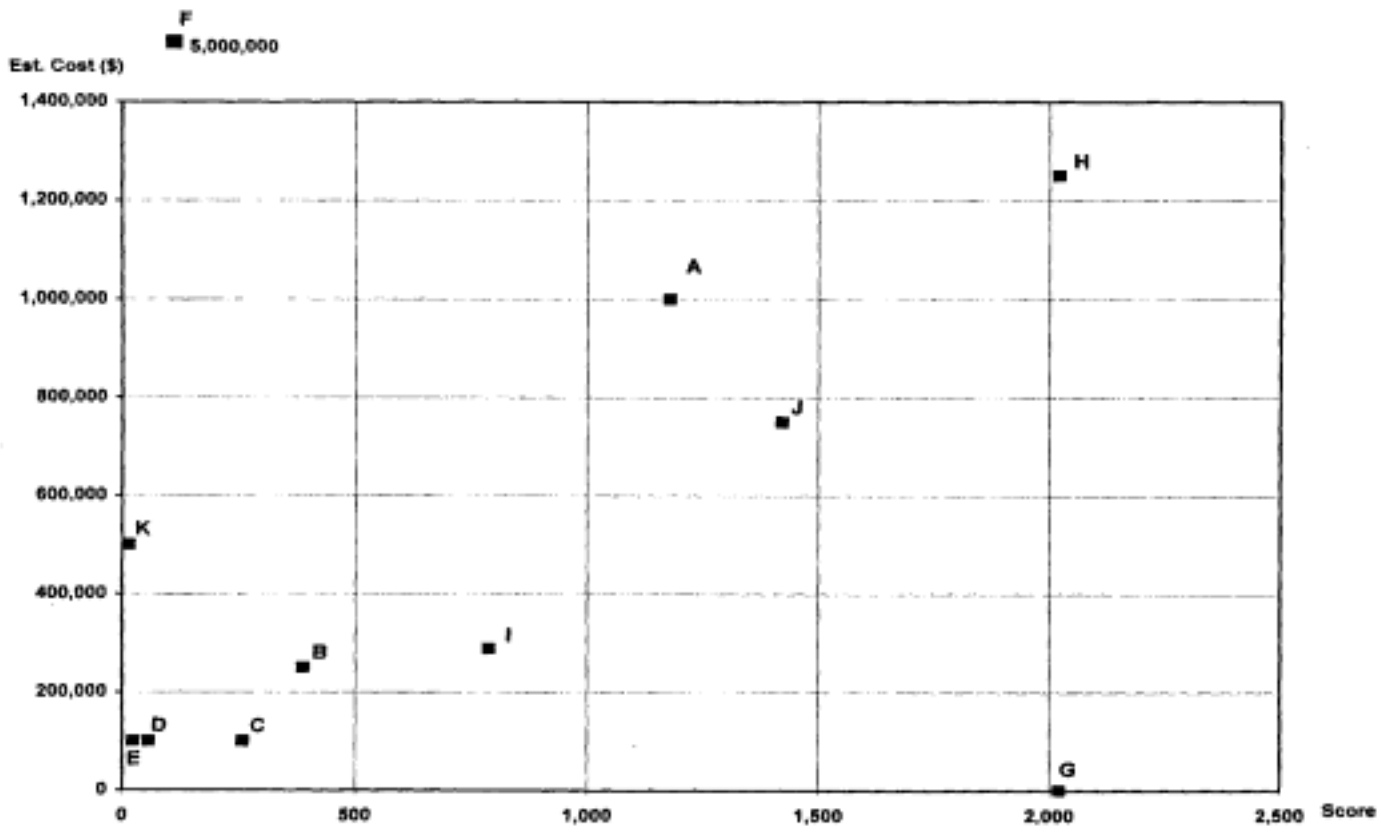

Figure B.2 Decommissioning Cost Estimates vs ORNL Sores for Contaminated Former Sites

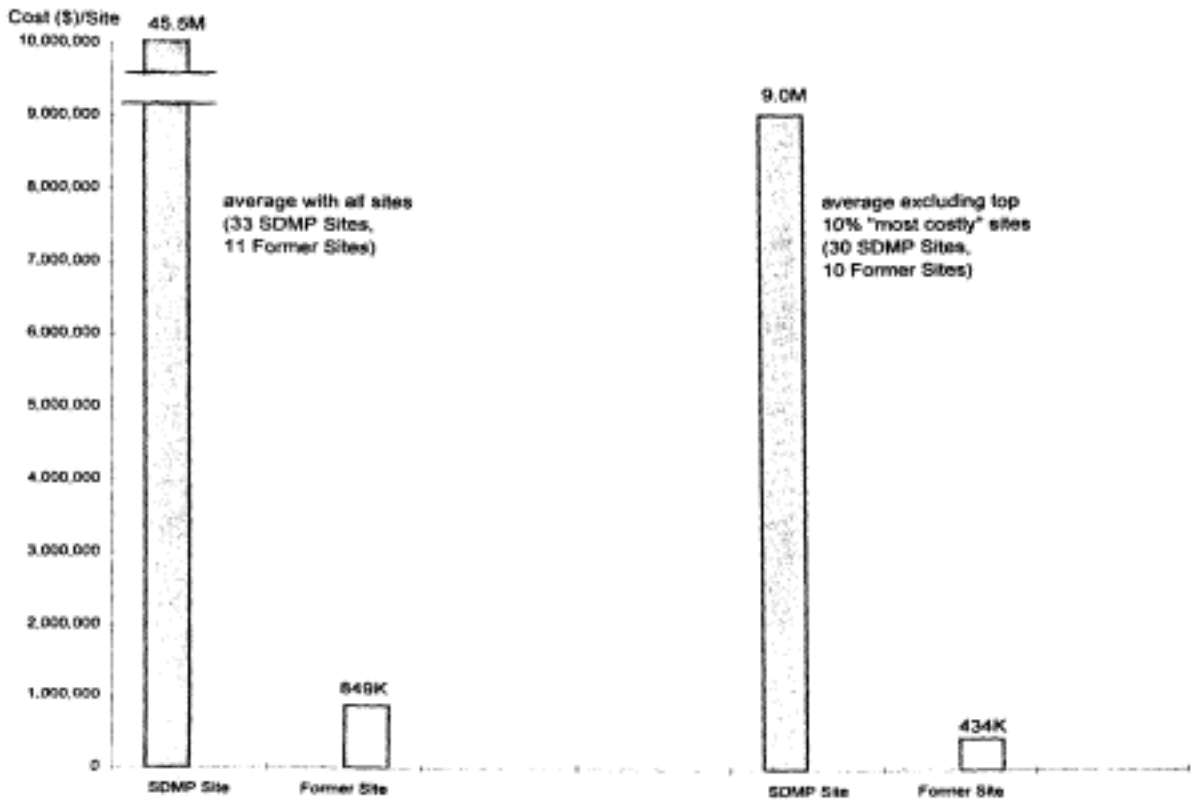

Figure B.3 Comparison of Average Cost per Site Between Contaminated Former Sites and SDMP Sites

Attachment C

Potential Former Sites That Need Funding Assistance

ORNL has identified a total of 1239 files (675 loose material and 564 sealed source files) that need further evaluation. Of those, 836 files have been closed after file review or site remediation, 384 files are pending for review, and 19 additional files are open due to site contamination. The statistics on the status of these files are listed in Tables C.1, C.2 and C.3. Of the 19 sites that have been identified in Agreement and non-Agreement States as contaminated, all are loose material sites; there is no sealed source site identified as a contaminated site.

Tables C.4 and C.5 provide detailed information on the number of the remaining formerly licensed sites that need file reviews and/or initial surveys in Agreement States and NRC jurisdiction respectively. The number of confirmed or potentially contaminated sites in each State is also listed in these two Tables. (Note: The total number shown at the end of each column in Tables C.4 and C.5 is also shown in Tables C.2 and C.3.)

To identify the number of sites that may potentially need funding assistance, the staff examined the 19 currently contaminated sites to check whether: (a) the current site owner was financially capable or (b) the original licensee is still in existence and financially capable. If neither of these two factors were positive, the staff considered the site as a potential contaminated site for funding assistance. After completing the screen process, which is documented in Table C.6, the staff identified four sites (sites D, N, R, S in Table C.6) that may need funding assistance due to the absence of a responsible party or original licensee. Two sites (sites R and S) are in Agreement State jurisdiction and the others (sites D and N) are in NRC jurisdiction.

For Agreement States, based on the ratio (~4%) of existing contaminated sites versus total loose material sites reviewed, the staff estimates that after review of the remaining 70 loose material files (see Table C.2), three sites may be found contaminated.[1] Of those three sites, based on the percentage of sites that need funding assistance, two sites may need funding assistance for remediation.[2] To be conservative, the staff recommends that one loose material

1. [19 (contaminated sites) / (532 + 19) (total loose material sites that have been reviewed)] ~ 4%

   [70 (unreviewed files) x 4%] = ~ 3 sites (estimated contaminated sites in Agreement States)

2. [2 (sites in Agreement States need funding assistance) / 4 (contaminated sites in Agreement States)] ~ 50%

   [3 (estimated contaminated sites in Agreement States) x 50%] = ~ 2 sites (estimated contaminated sites in Agreement States that need funding assistance)

site be added to account for the large uncertainty of this estimation. For sealed source sites, although there is no sealed source site being identified as contaminated (see Table C.3), the staff recommends that one sealed source site be included to account for the uncertainty. Based on the above evaluation for Agreement State sites, the staff estimates that a total of six sites (2 existing sites, 2 estimated loose material sites, 1 reserve site for loose material and 1 reserve site for sealed sources) may need funding assistance for remediation for a total amount of $2,604K[3].

For NRC jurisdiction sites, based on the same logic, the staff estimates that after review of the remaining 54 loose material files (see Table C.2), three sites may be found contaminated.[4] Of those three sites, one site may need funding for remediation.[5] Since the percentage of NRC sites that need funding assistance (13%) and the total number of the NRC unreviewed files (54) are lower than those (50% and 70 files respectively) for Agreement State jurisdiction sites, the staff recommends that no additional loose material site to be added for conservative estimation. Although there is no sealed source site being identified as contaminated (see Table C.3), the staff recommends that one sealed source site be included in case one of the 196 unreviewed sites (see Table C.2) needs funding assistance. Based on the above evaluation for NRC jurisdiction sites, the staff estimates that a total of four sites (2 existing sites, 1 estimated loose material site, 1 reserve site for sealed sources) may need funding assistance for remediation for a total amount of $1,736K.[6]

In conclusion, the staff estimates that there will be six sites in Agreement States and four sites in NRC jurisdiction that would need financial assistance to complete remediation at an average cost of $434K for a total of $4,340K.

3. [6 (sites) x 434K (per site)] = $2,604K

4. [54 (unreviewed) x 4%(see note 1)] ~ 3 sites (estimated contaminated sites in NRC jurisdiction

5. [2 (sites in NRC jurisdiction need funding assistance) / 15 (existing contaminated sites in NRC jurisdiction)] ~13%

   [3 (sites) x 13%] ~ 1 site (need funding assistance)

6. [4 (sites) x $434K (per site)] = $1,736K

Table C.1 Number of formerly licensed sites that have been closed after file review or remediation

Description	Agreement State Sites	non-Agreement State Sites	Total
Number of loose material sites	281	251	532
Number of sealed source sites	242	62	304
Grand Total			836

Table C.2 Number of formerly licensed sites that are pending for review

Description	Agreement State Sites	non-Agreement State Sites	Total
Number of loose material sites	70	54	124
Number of sealed source sites	64	196	260
Grand Total			384

Table C.3 Number of formerly licensed sites that have been identified as contaminated sites and still need remediation

Description	Agreement State Sites	non-Agreement State Sites	Total
Number of loose material sites	4	15	19
Number of sealed source sites	0	0	0
Grand Total			19

Notes:

a. 532 (Table C.1) + 124 (Table C.2) + 19 (Table C.3) = 675 (total loose material files)
b. 304 (Table C.1) + 260 (Table C.2) + 0 (Table C.3) = 564 (total sealed source files)

Table C.4 Formerly licensed sites in Agreement State jurisdiction that need file reviews and/or initial surveys, and that have been confirmed or potentially contaminated

State	Loose Material Sites	Sealed Source Sites	Confirmed or Potentially Contaminated Sites
Arizona	3	1	0
California	41	16	3
Colorado	4	5	0
Massachusetts	9	3	0
Maryland	0	7	0
New Mexico	0	2	0
North Carolina	0	1	0
North Dakota	0	1	0
New York	11	19	0
South Carolina	0	1	0
Texas	2	8	1
Totals	70	64	4

Table C.5 Formerly licensed sites in NRC jurisdiction that need file reviews and/or initial surveys, and that have been confirmed or potentially contaminated

State	Loose Material Sites	Sealed Source Sites	Confirmed or Potentially Contaminated Sites
Alaska	0	2	0
Connecticut	0	10	1
Delaware	0	1	0
DC	0	5	0
Hawaii	0	3	0
Idaho	5	1	0
Indiana	1	1	0
Michigan	0	2	2
Minnesota	1	0	0
Missouri	0	0	0
Montana	0	5	0
New Jersey	4	24	0
Ohio	0	0	2
Oklahoma	6	16	1
Pennsylvania	6	30	3
Vermont	0	0	0
Virginia	3	3	0
West Virginia	2	3	2
Wisconsin	0	3	0
Wyoming	4	7	1
Other NRC sites that are located in Agreement States: RI, RII, RIII, RIV	0, 2, 0, 20	34, 0, 0, 46	3
Totals	54	196	15

Table C.6 Sites that may need funding assistance (Agreement and non-Agreement States)

Region I

Site	State	Current Site Owner Financially Capable (Y/N)	Original Licensee Still in Existence and Financially Capable (Y/N)
A.	Connecticut	Y	N
B.	Pennsylvania	Y	Y
C.	Pennsylvania	Y	Y
D.	Pennsylvania	N	N
E.	New York*	Y	Y

Region II

Site	State	Current Site Owner Financially Capable (Y/N)	Original Licensee Still in Existence and Financially Capable (Y/N)
F.	Tennessee*	Y	Y
G.	West Virginia	Y	Y
H.	West Virginia	Y	N
I.	Alabama*	Y	Y

Region III

Site	State	Current Site Owner Financially Capable (Y/N)	Original Licensee Still in Existence and Financially Capable (Y/N)
J.	Michigan	Y	N
K.	Michigan	Y	Y
L.	Ohio	Y	Y
M.	Ohio	Y	Y

Table C.6 (cont.) Sites that may need funding assistance (Agreement and non-Agreement States)

Region IV

Site	State	Current Site Owner Financially Capable (Y/N)	Original Licensee Still in Existence and Financially Capable (Y/N)
N.	Wyoming	N	N
O.	Oklahoma	Y	N
P.	Texas**	Y	Y

Region IV (WCFO)

Site	State	Current Site Owner Financially Capable (Y/N)	Original Licensee still in existence and Financially Capable (Y/N)
Q.	California**	Y	N
R.	California**	N	N
S.	California**	N	N

* Identified as other NRC sites that are located in Agreement States listed in Table C.5.

** Identifies sites in Agreement State jurisdiction.

Note:

It is highly unlikely that any of the sites will be funded through the Comprehensive Environmental response, Compensation, and Liability Act (CERCLA) because these sites may not qualify for the CERCLA funding or they do not have high priority due to low safety significance compared to other candidates.

Attachment D

Cost Estimates for File Reviews, Initial Surveys and Regulatory Oversight

The staff has reviewed cost estimate information submitted by six Agreement States (including data previously submitted by Arizona and New York) and current NRC budgets for formerly licensed sites. Part A of this section discusses the cost estimates for file review and/or initial surveys. Part B discusses the Regulatory oversight cost estimates for site characterization and remediation.

Part A: Cost estimates for file review and/or initial survey

A comparison of the estimated costs submitted by six Agreement States for file review and/or initial survey is listed in Table D.1. Based on this evaluation, an average cost of $3,330 is estimated for file review and initial survey per site. Since half of the Colorado sites (four sites) are former mining sites with high estimated costs, the Colorado estimate was excluded in calculating the average cost to obtain a representative estimate. However, an amount of $132K (see Table A.1) for file review and initial survey of these four sites is included in the total cost estimation to account for this special case. Note that some sites may not need initial surveys to be closed out. For these sites, the cost estimates are less than those that need initial surveys. The cost estimates listed in Table D.1 are the average costs to close out a site that needs file review and/or initial survey.

As indicated in Table C.2 , there are 130 sites [66 loose material sites (not including four Colorado sites) and 64 sealed source sites] plus four Colorado mining sites which are still pending for file review. A total amount of $565K is estimated to complete the file review and initial survey of these unreviewed files in Agreement States[1]. For NRC jurisdiction sites, Table D.2 lists current budgets for file review and initial survey of the remaining 250 files (see Table C.2); an amount of $169K is estimated based on the budget information. In conclusion, an estimate of $734K ($565K for Agreement State sites and $169K for NRC sites) is needed to complete file reviews and initial surveys of the remaining 384 files (see Table C.2).

1. [130 (Agreement State sites need file review) x $3,330 (average cost per site)] + $132K (4 Colorado Sites) ~ $565K

Table D.1 Cost Estimates for File Review and/or Initial Survey Based on Information Submitted by Agreement States

No.	State	Cost Estimate for File Review and/or Initial Survey per Site ($)	Number of Sites for File Review and/or Initial Survey	Total ($)
1.	Arizona	5,000	4	20,000
2.	Colorado	17,738	8	141,904
3.	Illinois	885 *	55	48,650
4.	Texas	2,599	11	28,593
5.	New York	4,545	11	50,000
6.	Washington	3,600**	2	7,200
Average		3,330		

* Illinois has completed all the file reviews and initial surveys. The information listed is an actual cost.

**Washington has completed reviewing these two files. The actual cost for reviewing these two files is $3,600. Since these are related files, Washington noted that the estimated cost for each independent file review should be $3,600.

Table D.2 Cost Estimates for File Review and Initial Survey Based on NRC Budgets

Region	FTE ($)		
	FY 2000	FY 2001	FY 2002
I	0.5	0.5	0.3
II	0.1	0.1	0.1
III	0.2	0.2	0.2
IV	0.1	0.1	0.1
Total FTE (Cost)[1, 2]	0.9 FTE ($90K)	0.9 FTE ($95K)	0.7 FTE ($74K)

Notes:

1. Total costs for FY 2001 and FY 2002= $95K + $74K= $169K
2. 1FTE = $100K for FY 2000; 1FTE = $105K for FY 2001 and FY2002

Part B: Regulatory oversight cost estimates for site characterization and remediation

Colorado is the only State that estimated an average cost of $15,000 for regulatory oversight for site characterization and remediation for three former mining sites. The staff estimates an average of 0.1 FTE per site which is equivalent to $10,500 for regulatory oversight activity. It is estimated that a total 9 sites need regulatory oversight for site characterization and remediation in Agreement States.[2] Therefore, the total cost for regulatory oversight is estimated to be $95K.[3] The NRC regulatory oversight cost is not included since NRC conducts this effort as part of its decommissioning program and does not separate out these resources.

2. 4 (existing contaminated sites in AS, see Table C.3) + 3 (estimated contaminated sites in AS, see footnote 1 in Attachment C) +1 (reserve AS site for loose material) + 1 (reserve AS site for sealed sources) = 9 sites

3. 9 (sites) x $10.5K ~ $95K

Attachment E

FR Notice and Comment Summary

A Federal Register notice (64 FR 28014), included in this Attachment, was published on May 24, 1999 to request stakeholders' comments on the proposed grant program for Agreement States. Availability of the FR notice was also announced through the Office of State Programs list server, OSP Announcements, which has about 200 subscribers. The notice requested a response by June 18, 1999. Three commenters, the State of Illinois, the State of Maine and the Nuclear Energy Institute (NEI), provided comments in response to the FR notice which are summarized below:

Note that comment 1 refers to Illinois' comment, comment 2 refers to Maine's and comment 3 refers to NEI's comment.

- **The option of pursuing a separate appropriation from the General Fund to establish a fund for use by Agreement States through grants to assist in file reviews and, when necessary, the remediation of formerly NRC-license sites.**

Comment 1:

We cannot agree with the current proposal, because it appears exclusively prospective in character. It fails completely to recognize that at least one State has already resolved the issue related to sites formerly licensed by NRC, and appears intended to fund only future efforts in this area. Any proposal to fund such efforts must also be designed to retroactively compensate Agreement State programs that have already taken it upon themselves to rectify NRC's earlier failures. Under any such proposal, the State of Illinois expects to be reimbursed fully for performing its work in resolving these NRC license terminations.

Response:

Illinois has been an outstanding example of a State accepting its responsibility and addressing the formerly licensed sites within its borders. However, the funding mechanisms available to the NRC for financial assistance do not allow NRC to fund work that has already been completed. The funding assistance mechanisms are described in Management Directive 11.6, "Financial Assistance Program." The staff does not have a financial assistance mechanism that will allow payment for work completed prior to the award of the mechanism (grant, contract, or cooperative agreement).

Comment 2:

Yes, this should be pursued. The only fair and equitable method of dealing with these sites.

Response:

None needed.

Comment 3:

NEI supports the option of seeking an appropriation from the General Fund in lieu of using funds from the NRC fee base. In prior letters, NEI has indicated the NRC should not use licensee fees for programs that do not directly benefit the licensees. The need for this program did not result from the actions of current licensees, and they should not, therefore, have to fund it.

The cost for decommissioning a site and terminating the license is the responsibility of the licensee. The NRC has the responsibility to assure that the licensee has properly carried out the site cleanup before it terminates the license. Current NRC licensees should not be held accountable for any failures in the execution of these responsibilities. Therefore, it is appropriate for the NRC to seek an appropriation from the General Fund for this activity.

NEI does not support establishment of a general fund for this activity. In lieu of a general fund we would recommend the NRC's funding be based on specific pre-approved projects. Projects approved in one fiscal year will be funded the following fiscal year. If a State elects to move forward using its own funds, it can do so, but would assume the risk that it may not be reimbursed. Funding for projects could be released based on the project phase. The first phase could be the review of records by the State, the second phase could be site visits and determination of potential site problems, the third phase could be site remediation, and the final phase could entail documentation and record completion. Funding could be released for multi-phases at one time, but funding would not be provided out of sequence.

Response:

No response needed regarding comment on the appropriation from the General Fund. Staff agrees that comments on the phased approach to funding this activity is the preferred approach. The staff developed a phased approach for disbursement of the appropriated funds that implements a three phased program similar to that suggested by NEI. The program, however, would not include funding based on "pre-approved" projects since staff believes the time delays inherent in budgeting under such an approach would extend the time for obtaining approved funds. Additional details of the funding approach are described in the grant program description.

- **Aspects that should be considered in development of a decision framework that describes how NRC would allocate the appropriated funds, if approved, to individual Agreement States.**

Comment 1:

NRC should request appropriation of funds sufficient to reimburse Agreement States for work already accomplished and to allow all future work to be performed. Grant amounts should be based on the State efforts to date and/or their estimate to complete the work. Initial fund disbursement should compensate States for work already completed and allow States to begin work with further disbursement based on work performed.

Response:

As discussed above, NRC does not have authority to reimburse States for work already completed.

Comment 2:

I think it's the site specific criteria that would dictate whether or not a State would get any funding for the clean up. It obviously would need to be a site that had pre-Agreement considerations that were only being dealt with now.

Response:

Staff agrees. The formerly licensed sites program only deals with NRC/AEC licensed sites. Funding for current Agreement State or NRC license problems is not contemplated in this program and was not considered in the development of the funding request.

Comment 3:

NEI recommends that funds be requested for only pre-approved projects. This would mean that funds requested for fiscal year 2001 are based on projects approved in fiscal year 2000. If there is a funding shortfall in a fiscal year, the NRC should fund the pre-approved projects that pose the higher radiological risks to the public. If funds are available to fund the high risk sites, but are insufficient to fund all of the remaining pre-approved projects, the NRC should distribute any remaining funds to projects in the order the projects were approved.

Response:

Staff is proposing a phased approach for disbursement of funds. In addition, a risk ranking system is being developed to provide a consistent basis to determine the priority for funding remediation of contaminated sites. If insufficient funds are available, the higher risk sites will be funded first.

- **Aspects that NRC should consider in development of a grant program for providing funds, if approved, to individual Agreement States to ensure a relatively**

fair and equitable allocation of available funds. For example, the funds could be provided to individual Agreement States based on the estimated cost for each site to comply with a 25 millirem/year public dose standard. Additional risk-ranking of the sites may also be necessary in the event that appropriated funds are less than requested.

Comment 1:

NRC should request appropriation of funds sufficient to reimburse Agreement States for work already accomplished and to allow all future work to be performed. The 25 millirem/year standard is adequate if NRC is concerned that a more stringent cleanup standard would escalate program costs.

Response:

The reimbursement issue was addressed above. The potential for program costs to escalate is a concern if clean-up is proposed to a more stringent standard.

Comment 2:

Since the clean up is being held to the 25 millirem standard then I believe the ranking system would be best if evaluated on a public/environmental risk scenario. Areas affecting a large number of people having the largest (person-rem) I would think would be first. This evaluation should include possible environmental exposure pathways, to include groundwater (aquifer contamination could affect a large number of people), and other environmentally sensitive areas.

Response:

The staff believes the substance of this comment is addressed by the proposed ranking system. The risk ranking system developed focuses on the potential population that could be impacted by the site as well as the radiation levels at the sites. The staff believes that this approach is sufficient to decide on the priority for funding. Any detailed risk assessment would be prepared by the current site owner or the Agreement State in support of the specific action at each site.

Comment 3:

The NRC should request the appropriation based on pre-approved projects. Only if the appropriation is less than that requested should the NRC impose a ranking system. If a ranking system proves necessary, the higher radiological risk sites should be funded with any remaining funds distributed in the order that project funding was approved.

The 25 millirem/year public dose standard can be used as guidance, but it should not be the cleanup criteria. The 25 millirem standard should only apply to sites that were decommissioned since this standard became effective. Licenses terminated under earlier standards should be evaluated against the standard in effect at the time the license was terminated. This condition was established in 10CFR 20.1401 when new license termination provisions were added to the regulations. If the NRC does not adopt this position, it may result in the funding of cleanups that are not necessary.

Response:

As discussed above, the staff does not believe the pre-approved projects is the best administrative way to complete the formerly licensed sites program. As discussed above, the staff has developed a risk ranking system and will apply it if there are insufficient funds to complete all the sites.

- **Additional information on cost estimates for site remediation (See cost estimates stated in SECY-28-273. Also see all Agreement States letter SP-99-016.)**

Comment 1:

Since the Department has completed its effort resolving issues related to formerly NRC licensed sites in Illinois. Our actual costs (not estimated) are $48,650. Copies of the Department's letters dated April 27, 1999, May 12, 1998, and December 30, 1997, regarding Departmental costs related to these sites are enclosed.

Response:

The NRC thanks Illinois for providing us this information. The data was used in calculating the average cost for file review and initial site surveys.

Comment 2:

I haven't had time presently to evaluate the cost estimates, but with the importance of this issue I wanted to get some comment out to you.

Response:

None needed.

Comment 3:

Assuming the NRC adopts NEI's recommendation that appropriations be requested only for pre-approved work, the NRC would have to inform the Agreement States that additional funds may not be available if the project's actual costs exceed estimated costs. While the Agreement States could file a request for supplemental funding, the request may be assigned a lower priority than requests for initial project funding. This should discourage deliberate underestimation of project costs, just to get the project started. It may cause some project cost estimates to be high, but NEI believes it would be better to include some contingency and have the project completed, rather than be underfunded and not completed in a timely manner.

NEI's recommended approach- funding of discrete phase of only pre-approved projects - will yield greater confidence in developing cost estimates, allow for better accountability on the accuracy of each phase of activity, and provide better assurance of the money needed. It is also consistent with the federal governments five year rolling budgeting process. Therefore, it is more likely to be funded and continue to receive Congressional funding until the program is completed.

Response:

The staff has not proposed a pre-approved project concept due to the concern for the length of time required to conduct such a program. However, as discussed above, the staff has developed a phased funding approach that includes several of NEI's suggestions.

[Federal Register: May 24, 1999 (Volume 64, Number 99)]
[Notices]
[Page 28014-28015]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr24my99-114]

NUCLEAR REGULATORY COMMISSION

Proposed Grant Program for Agreement States for Formerly NRC-Licensed Sites; Public Comment

AGENCY: Nuclear Regulatory Commission.

ACTION: Request for public comment.

SUMMARY: The Nuclear Regulatory Commission (NRC) is seeking stakeholder views on a proposal to pursue a separate appropriation from the General Fund. The separate appropriation would make funds available through a grant program to assist Agreement States in completing file reviews, and remediation in certain cases, for sites formerly licensed by the NRC. Based on review of files for previously terminated licenses, the NRC has identified a number of sites for which there is insufficient documentation on site decommissioning or sealed source disposition. If the site is located in an Agreement State, any radioactive material present at the site is subject to Agreement State regulatory jurisdiction.

DATES: Submit written comments by June 18, 1999. Comments received after this date will be considered if it is practical to do so, but the NRC is able to ensure consideration only for comments received on or before this date.

ADDRESSES: Submit written comments to: Chief, Rules and Directives Branch, Mail Stop: T6-d59, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001 or by Internet electronic mail at DLM1@NRC.GOV.

FOR FURTHER INFORMATION CONTACT: Dennis Sollenberger, Office of State Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, by telephone 301-415-2819 or by Internet electronic mail at DMS4@NRC.GOV.

SUPPLEMENTARY INFORMATION:

Background

The NRC has been reviewing files for previously terminated licenses to determine whether there was appropriate documentation in the files that the sites were adequately decontaminated prior to termination of the license and release of the site. This project was initiated in 1977 for licenses terminated prior to 1965. Subsequent effort was initiated in 1989 for licenses terminated after 1965, which was later expanded to include all terminated licenses. A number of files have been identified for which there is insufficient documentation about site decommissioning or sealed source disposition.

Radioactive material remaining at a site located within an Agreement State, including material originally licensed by the NRC or its predecessor, is the regulatory responsibility of the Agreement State. Therefore, an Agreement State has jurisdiction for license file reviews, initial site investigations, and remediation of any sites identified as being contaminated, and any sites where the file has inadequate accounting of sealed sources.

Discussion

The NRC staff has analyzed options relating to NRC formerly licensed sites located in Agreement States. This

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information is set out in Commission Paper--SECY-28-273, ‘‘Potential Funding Assistance for Agreement States for Closure of Formerly Terminated NRC Licenses’’ dated November 20, 1998. In this paper, the NRC staff reports on Agreement State and NRC staff actions and presents options and recommendations for funding Agreement States’ efforts in addressing this issue.

The Commission responded to this paper through issuance of a Staff Requirement Memorandum (SRM) for SECY-98-273. In this memorandum, the Commission approved the NRC staff recommendation to continue Agreement State jurisdiction over formerly licensed sites and to develop a grant program to make funds available to Agreement States for file review and remediation in certain cases. The recommended option is to pursue a separate appropriation from the General Fund. This separate appropriation, if approved, would fund Agreement States, through grants, to assist in completing file reviews and the remediation of formerly NRC-licensed sites in certain cases. Such cases include sites when no responsible party can be located, or the responsible party does not have the resources to conduct the remediation, and the site does not qualify for cleanup under the Comprehensive Environmental Response,

Compensation, and Liability Act.

In the SRM for SECY-98-273, the Commission directed the staff to seek stakeholder views before pursuing a General Fund appropriation. Public comments are requested on:

<bullet> The option of pursuing a separate appropriation from the General Fund to establish a fund for use by Agreement States through grants to assist in file reviews and, when necessary, the remediation of formerly NRC-license sites.

<bullet> Aspects that should be considered in development of a decision framework that describes how NRC would allocate the appropriated funds, if approved, to individual Agreement States.

<bullet> Aspects that NRC should consider in development of a grant program for providing funds, if approved, to individual Agreement States to ensure a relatively fair and equitable allocation of available funds. For example, the funds could be provided to individual Agreement States based on the estimated cost for each site to comply with a 25 millirem/year public dose standard. Additional risk-ranking of the sites may also be necessary in the event that appropriated funds are less than requested.

<bullet> Additional information on cost estimates for site remediation (See cost estimates stated in SECY-28-273. Also see all Agreement States letter SP-99-016.)

The above three documents, SECY-28-273, SRM-SECY-28-273 and SP-99-016, are available on the NRC homepage at: http://www.hsrd.ornl.gov/nrc/agstates/program/sp99016.pdf

Dated at Rockville, Maryland, this 18th day of May 1999.

For the Nuclear Regulatory Commission.

Paul H. Lohaus,

Director, Office of State Programs.

[FR Doc. 99-13020 Filed 5-21-99; 8:45 am]

BILLING CODE 7590-01-P

Attachment F

Appropriation For Grants

DRAFT

There is hereby appropriated from the General Fund for fiscal year 2001 to the Nuclear Regulatory Commission not to exceed $1,650,000 to provide financial assistance to States for the purposes of reviewing files, conducting surveys, characterizing and remediating sites formerly licensed by the Commission. The appropriated funds remain available until expended.

Attachment G

Grant Program Summary and Priority Logic

A grant program was developed for providing funds to individual Agreement States to help ensure a relatively fair and equitable use of available funds. The program also includes procedures to conduct risk-ranking of the sites to ensure that funds are available for the "high risk"sites in the event that the appropriated funds are less than requested or prove to be insufficient to fully remediate all sites identified to date. The grant program is organized into three major phases: (1) file review and initial survey, (2) site characterization and (3) site remediation, The staff believes a limited time period needs to be established when States could submit grant proposals for each of the phases. This would allow staff to determine if the costs are running in line with estimates and allow coordination of awarding grants for remediation under the third phase. Prior to implementing this grant program, the staff will work with the affected Agreement States in the development of specific implementing procedures and information needs.

Each phase is summarized below:

Phase 1: Funding for File Review and Initial Survey

Each State that desires or needs funding assistance to conduct file reviews and initial site surveys will need to submit a grant proposal that describes the number of files to be reviewed, the estimated hours per review, the cost of any site surveys to be conducted and the estimated time to complete the process. The NRC staff will review each grant proposal to determine if the costs are reasonable. The Agreement State would need to complete all file reviews prior to the State submitting a proposal for site characterization funding under the second phase.

Phase 2: Funding for Site Characterization

Each State that desires funding assistance for characterization of sites must submit a grant proposal. The funding will not be granted to a site if any of the following conditions exist.

- The current site owner is financially capable for site characterization.
- The original licensee is still in existence and financially capable.
- Site qualifies for CERCLA funding assistance.

The grant proposal should contain the number of sites that need funding assistance, the site specific characterization cost estimate, the basis for this cost estimate, and the total costs for the State. The State will be granted funding after NRC staff reviews their proposal and finds it acceptable. The NRC staff will review one proposal for this phase of the funding. Therefore,

States should complete all file reviews before submitting their site characterization proposal to NRC.

Phase 3: Funding for Site Remediation (See flow chart in Figure G.1)

For each site that has been characterized, the State should develop a site remediation plan. This plan would be the basis for the grant proposal for that contaminated site. The State should develop a separate grant proposal for each contaminated site. The NRC will specify a time period during which it will evaluate grant proposals. As the proposals are received, the staff will review the proposals for the information necessary for risk-ranking the site. (Staff expects this information would be developed as part of site characterization activities.) At the end of the grant evaluation period, the staff will determine if the requested amounts are consistent with site characterization data and within the appropriated funds. Funding will be provided based on the estimated cost for each site to comply with 25 millirem/yr public dose standard. Additional remediation cost for compliance with more conservative criteria will not be funded through these grants. If necessary, the staff will approve the grants based on the risk-ranking for each site. A minimal risk ranking score for each site would be determined based on the factors listed in Table G.1. The site which has a higher final score will be considered a higher priority. Note that the score ranges in Table G.1 are default values which will be revised after the staff works with the affected Agreement States in the development of specific implementing procedures.

The proposal submitted by the State for each site should include the following information:

- A brief description of the site cleanup plan.
- An estimate of the residence or worker population, if any, within the contaminated area(s).
- Accessibility of the contaminated site to the public.
- Average gamma surface dose rate of the contaminated areas.
- An estimate of the contaminated areas.
- An estimate of the total volume of waste.
- An estimate of percentage of loose contaminated area.
- Economic impact of not cleaning up the site immediately.
- The funding needed for each year and the amount of time needed to complete site cleanup activities.
- Plans for disposal of waste.
- A statement or conclusion that the contaminated site has exceeded the 25 millirem/year public dose standard, has no financially solvent responsible party.
- A statement or conclusion that the contaminated site would not be a candidate for cleanup under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

- Any other considerations that warrant this site to be cleaned up in a short time.

The grant will not be approved if any of the following conditions exist in the submitted proposals by Agreement States.

- The current site owner is financially capable for site remediation.
- The original licensee is still in existence and financially capable.
- Site remediation for compliance with more conservative criteria than 25 millirem/year public dose standard.
- Site qualifies for CERCLA funding assistance.

The priority to fund a specific site for remediation will be determined by a ranking system which will rank sites from high to low priority based on the factors identified in Table G.1. The priority list will be maintained by NRC. The annual appropriation process will be used for requesting the anticipated funding. The funding will be granted to the higher priority sites. The number of higher priority sites receiving the funding depends on the available funds.

NRC staff will request progress reports for site remediation activities conducted by the State. The frequency of reporting site remediation progress by the State depends on the amount of funding granted and the time needed for completing site remediation and will be addressed for each site by NRC staff before the grant is approved. A final report to address the completeness of site remediation is also necessary for each grant recipient.

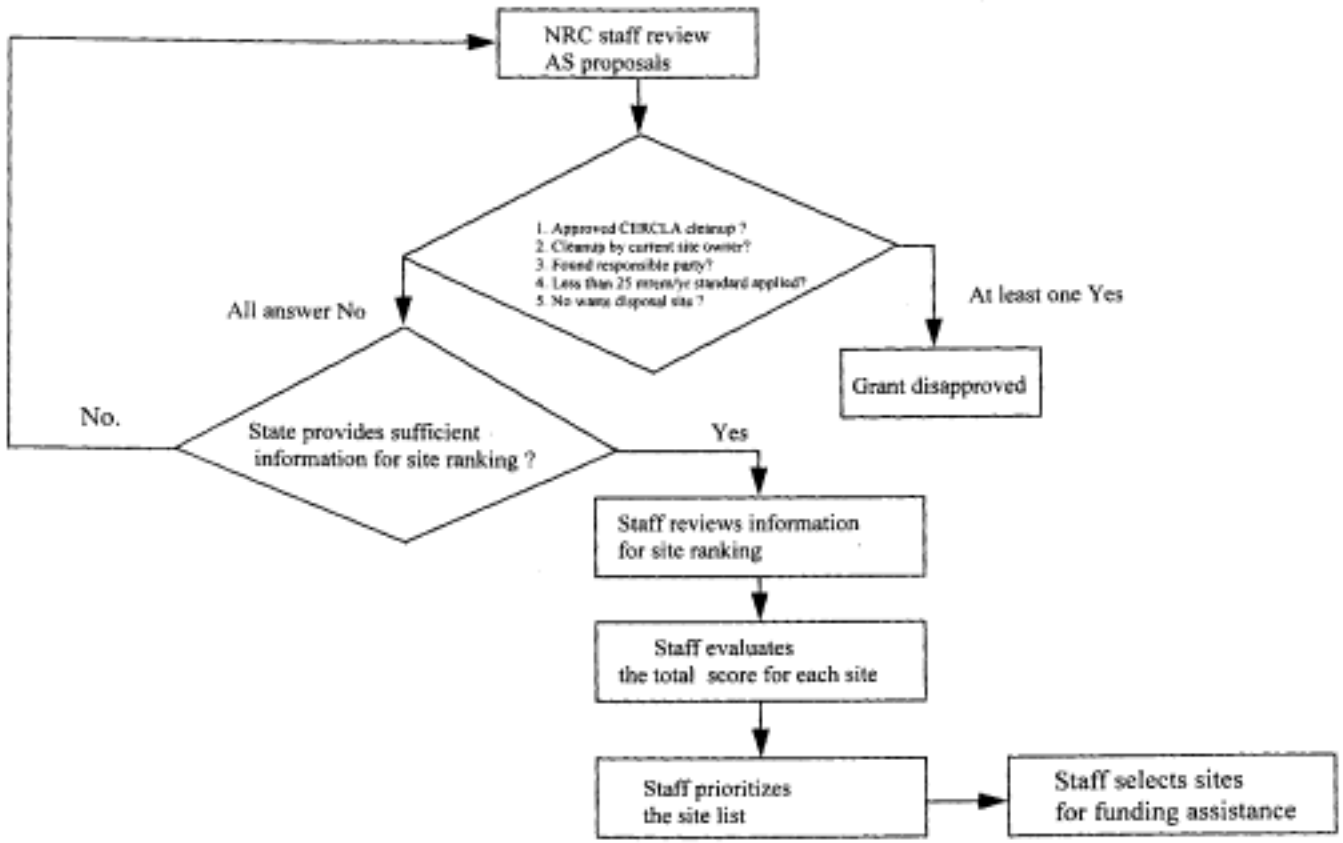

Figure G.1 Funding for Site Remediation

Table G.1 Risk ranking system for Contaminated Former Sites[1, 2]

Item	Description	Weight	Score Range
1.	Residence population within the contaminated areas	10%	The score is from 0 to 10 corresponding to a population from 0 to 100 persons. The score is 10 when the population is more than 100 persons but the reviewer may give extra points under “Other Considerations” category.
2.	Accessibility to the public	10%	The score is 0 if the area is not accessible to the public. The score is 10 if the area is open to the public.
3.	Average gamma surface dose rate	20%	The score is from 0 to 20 corresponding to a surface dose rate from 0 to 0.02 mSv/hr (2 mrem/hr). The score is 10 if the dose rate is more than 0.02 mSv/hr (2 mrem/hr) but the reviewer may give extra points under “Other Considerations” category.
4.	Contaminated area(s)	10%	The score is from 0 to 10 corresponding to the contaminated area ranging from 0 to 1 acre. The score is 10 if the contaminated area is more than 1 acre but the reviewer may give extra points under “Other Considerations” category.
5.	Total waste volume	10%	The score is from 0 to 10 corresponding to the total waste volume ranging from 0 to 1,000 cubic feet. The score is 10 if the volume is more that 1,000 cubic feet but the reviewer may give extra points under “Other Considerations” category.
6.	Loose or fixed contamination	10%	The score is 0 for fixed contamination only. The score is 10 for loose contamination only.
7.	Economic impact for not cleaning up the site immediately	10%	The score is 0 if there is no economic impact for not cleaning up the site immediately. The score is 10 if the financial cost for not cleaning up the site immediately is $100K /yr. The score is 10 if the financial cost is more than $ 100K/yr but the reviewer may give extra points under “Other Considerations” category.
8.	Other Considerations	20%	This category is reserved for the reviewer to add extra points for items 1, 3, 4, 5 and 7 when the conditions in these items are out of the score range. This category also allows the reviewer to account for conditions that may not fall into the above seven categories but warrant separate consideration. The reviewers will provide clear basis for any extra points that would be given.
	Total	100%	

Notes:

1. The score ranges are default values which will be revised after receiving comments from Agreement States on implementing the risk ranking system.

2. Funding will be provided based on the estimated cost for each site to comply with the 25 mrem/yr public dose standard. Any additional cleanup cost for compliance with more conservative criteria will not be considered for funding assistance.

August 25, 1999

MEMORANDUM TO: William D. Travers
Executive Director for Operations

Karen D. Cyr
General Counsel

FROM: Annette L. Vietti-Cook, Secretary /s/

SUBJECT: STAFF REQUIREMENTS - SECY-99-193 - COST ESTIMATES FOR COMPLETION OF FORMERLY TERMINATED NRC LICENSED SITES PROGRAM

The Commission has approved of the staff's recommendation to submit the General Fund appropriation, described in SECY-99-193, to the Office of Management and Budget as part of the FY 2001 budget request.

The stakeholder views concerning the use of the General Fund appropriation for this program should be included as a supplement to the legislative package proposal to ensure that OMB and Congress are aware of our stakeholder concerns and support.

Modify Figure G.1, criteria 4, so that it reads 'Less than 25 mrem/yr ~~standard~~ limit applied?'

The staff should provide a copy of SECY-99-193 and the Commission's direction on it to the commenters, since there were relatively few of them, in lieu of issuing a second *Federal Register* notice.

SECY-99-193 does not set forth or analyze the issues that would need to be considered before the Commission could propose legislation aimed at facilitating the cleanup of sites in non-Agreement States. The staff needs to explore various options to make funds available to complete remediation at those few sites where adequate funding is not available and when the site would not qualify for cleanup by the Environmental Protection Agency. Accordingly, the staff should develop a new paper on these issues, to include funding options, for the Commission's consideration.

(OGC/EDO) (SECY Suspense: 3/31/00)

cc: Chairman Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield
OGC
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CFO
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OIG
OPA
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PDR
DCS