



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

A61

OCT 5 1983

MEMORANDUM FOR: Robert S. Brown, Jr., Assistant to the Director
and Chief, Program Support Branch, NMSS

FROM: Donald R. Chapell, Deputy Director
Division of Fuel Cycle and Material Safety, NMSS

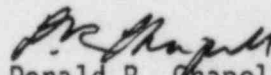
SUBJECT: REVISION OF 10 CFR 170 (NMSS 83-845)

Enclosed are recommendations for formulating ceilings for specified fee categories as requested in your memorandum of August 19, 1983. Enclosure 1 covers the identified fee categories for Special Nuclear Material and Source Material licenses; Enclosure 2 covers Transportation Certification categories.

Recent resource data to use as a basis for the recommended ceilings are quite limited. Thus, we have used our knowledge from past experience and similarities in types of cases to develop reasonable estimates where recent data was unavailable or insufficient. For this reason, we recommend that the License Fee Management Branch appropriately round the total cost values obtained from our recommendations.

Our present experience with technical assistance contractors indicates that environmental appraisals for major amendments and renewals, when required, are costing from \$80,000 to \$100,000. Accordingly, these values are used in the recommended ceilings although past data may indicate that costs were somewhat less.

We would be pleased to meet with you and staff of the License Fee Management Branch if necessary to further discuss the bases for our recommendations.


Donald R. Chapell, Deputy Director
Division of Fuel Cycle and
Material Safety, NMSS

Enclosures: As stated

NMSS LICENSE FEE INFORMATION

URANIUM FUEL LICENSING BRANCH

AND

ADVANCED FUEL AND SPENT FUEL LICENSING BRANCH

Listed below are recommended ceilings, in terms of staffhours and contractual costs, for the specified fee categories. For reference ease, the attached page 6 describes the type of activities covered by the identified fee categories. Dashed lines indicate that no ceiling is recommended at this time for the particular licensing activity. The reasons for not recommending ceilings are given following the table; the bases for the recommended ceilings are then discussed.

<u>Fee Category</u>	<u>Recommended Fee Ceilings</u>	
	<u>Staffhours</u>	<u>Contract \$K</u>
1. Special Nuclear Material		
A. New License	---	---
Renewal	700	100
Amendment	400	80
B. New License	---	---
Renewal	700	100
Amendment	400	80
C. New License	---	---
Renewal	---	---
Amendment	---	---
D. New License	---	---
Renewal	900	0
Amendment	400	0
E. New License	---	---
Renewal	900	0
Amendment	100	0
F. New License	---	---
Renewal	900	0
Amendment	100	0
G. New License	---	---
Renewal	350	0
Amendment	100	0
H.1. New License	---	---
Renewal	---	---
Amendment	---	---
H.2. New License	4000	150
Renewal	---	---
Amendment	---	---

<u>Fee Category</u>	<u>Recommended Fee Ceilings</u>	
	<u>Staffhours</u>	<u>Contract \$K</u>
2. Source Material		
C. New License	---	---
Renewal	700	100
Amendment	400	80
D. New License	---	---
Renewal	700	100
Amendment	400	80

I. Reasons for no recommended ceilings

- A. No ceilings are recommended for new licenses for any fee category with the exception of Category 1.H.2. because (a) there is no recent resource data on which to base a recommendation, and (b) there are no applications anticipated for such licenses in the foreseeable future. (It is potentially possible that an application could be received from DOE falling into Category 1.H.1, but DOE is exempt from license fees.)
- B. No ceiling is recommended for license renewals or amendments for Category 1.C. because there are no plutonium processing and fabrication operations now being conducted under license and none are anticipated in the foreseeable future. Licensees previously authorized to conduct such activities have either announced plans for, have initiated or have completed decontamination and decommissioning of their facilities. The possession and use of plutonium during the decontamination phase are covered by other fee categories.
- C. No ceiling is recommended for license renewals or amendments for Categories 1.H.1 and 1.H.2. The General Electric-Morris Operation is the only license currently effective in Category 1.H.1 and the license was recently renewed for the 20-year term authorized by 10 CFR Part 72. Any new license under Category 1.H.2 would also be issued for a 20-year term. There is no appropriate basis to project a ceiling for amendments for either category.

II. Basis for recommended ceiling for new licenses under Category 1.H.2.

License applications under Category 1.H.2 are now expected to be for adding spent fuel storage capacity at operating reactor sites in accordance with the Nuclear Waste Policy Act. Dry storage technologies are expected to be used. While no license has been issued, the staff has under review an application for dry cask spent fuel storage from VEPCO for its Surry Nuclear Power Station. We believe there is sufficient basis to project an effort of about 2 staffyears supplemented with \$150,000 technical assistance costs (A contract for that amount is in effect for the VEPCO review.). We recommend these estimates as a ceiling, recognizing that future applications for dry cask storage may require somewhat less effort than this initial review..

III. Bases for recommended ceilings for license renewals.

Fee Category

Basis

- | | |
|------|--|
| 1.A. | No recent resource data are available for renewal of this category, but past experience and the fact that the elements of safety and environmental reviews are quite similar to those for Category 1.B. provide a basis for an expected value to be comparable to that of 1.B. renewals. |
| 1.B. | The resource data for recent renewal of the license for Combustion Engineering (Docket 70-1100, 695 staffhours, \$81,500 contractual cost) provide the basis for the expected value of a renewal in this category. |
| 1.D. | The expected value for renewals of this category are based on recent renewals of licenses for the Babcock and Wilcox Research Center (70-824) and for the Battelle Columbus Laboratories (70-8) where the staffhours recorded were 890 hours and 960 hours, respectively. In the case of Battelle, contractual costs of \$104,000 were also incurred for technical assistance in the preparation of an environmental assessment, but this has not been included in the recommended ceiling for the expected value for the following reasons: (1) no prior environmental assessment had been performed for the Battelle facilities and substantial effort was required to accumulate and evaluate environmental data, and (2) any subsequent update that might be necessary will likely be performed by staff without contractual assistance. |

Fee Category

Basis

- 1.E. The only licensee that will be subject to possible future renewal under this category is Rockwell International (70-25). The renewal application presently under review requests authority to possess 3.5 kg of plutonium in unsealed form as irradiated mixed-oxide fuel. The hot cell activities under the license can be compared to the activities authorized by the licenses discussed under Category 1.D. above and, therefore, the recommended ceiling is the same as Category 1.D. Other licenses presently in Category 1.E. are for former plutonium processing and fabrication facilities that are undergoing decontamination and decommissioning; these licenses remain in effect until the NRC formally terminates the license and do not require renewal (Expiration dates can be extended if necessary by the NRC without application by the licensee.).
- 1.F. Licensees in this category subject to possible future renewal action are General Electric-Vallecitos (70-754), the Babcock and Wilcox Research Center (70-824) and General Atomic (70-734). The first two licensees also fall under Category 1.D., while General Atomic falls under Category 1.A. While staff reviews focus on the primary activities under the latter categories, authority to possess and use unsealed plutonium for R&D activities does require additional consideration. The recommended ceiling is, therefore, the same as Category 1.D. with a recognition that the resources actually required will probably be less than the sum of the two applicable categories. Other licenses in this category are for former plutonium processing and fabrication facilities being decontaminated and decommissioned; see discussion for 1.E. above.
- 1.G. The basis for the recommended ceiling is the resource required for renewal of the license for the Battelle Pacific Northwest Laboratories (352 staffhours).
- 2.C. No recent data is available for this category, but a ceiling has been recommended based on past experience and the similarity of review elements with the ongoing renewal of the Kaweck-Berylco Industries license in Category 2.D.
- 2.D. The recommended ceiling is based on projected resources for renewal of the Kaweck-Berylco Industries license which is presently underway (about 700 staffhours and an estimated \$100,000 for an environmental appraisal).

IV. Bases for recommended ceilings for amendments.

Review of resource data required for issuance of amendments shows that the vast majority of amendments require less than 100 staffhours to process. Past experience and knowledge of existing licensee activities indicate that 100 staffhours is a reasonable maximum estimate to be expected for Categories 1.E., 1.F., and 1.G.

For the more complex operations conducted under Categories 1.A., 1.B., and 1.D., applications involving major expansion or modification of facilities and/or the addition of major new activities can involve substantive resources in the review. An example is an amendment for Combustion Engineering (70-36) that required 409 staffhours and \$50,000 contractual costs. Another example is an amendment for General Electric (70-1113) that required a total of 763 staffhours and \$74,000 of contractual costs. In this latter case, the amendment actually combined two applications; taking this into consideration, we believe that a reasonable maximum for a ceiling would be 400 staffhours with \$80,000 for contractual assistance. (The latter value reflects present estimates for an environmental appraisal for a new activity that relies for support on certain aspects of a previous appraisal at time of renewal.) The examples given are for Category 1.B. licensees, but should also be applicable to Category 1.A. licensees. For Category 1.D., a similar basis is applicable for staffhours, but it is less likely that contractual assistance would be required for the environmental aspects and such costs are not included in the recommended ceiling.

Amendments of source material licenses in Categories 2.C. and 2.D. may also occasionally involve substantive staff effort. Based on past experience, we estimate that the resources required would be covered by the ceilings recommended for Categories 1.A. and 1.B. It should be noted that an application presently filed by Kerr-McGee (40-8027) under Category 2.C. involving radioactive waste disposal potentially may require a full environmental impact statement. If this should be the case, contractual costs would likely approach or exceed \$200,000. Such costs would be atypical for an existing license, however.

LICENSE FEE CATEGORIES

1. SPECIAL NUCLEAR MATERIAL :

- A. Licenses for 5kg or more of U-235 enriched to 20% or more for fuel processing and fabrication
- B. Licenses for 5kg or more of U-235 enriched to less than 20% for fuel processing and fabrication
- C. Licenses for 2kg or more of plutonium for fuel processing and fabrication
- D. Licenses for 5kg or more of U-235 in unsealed form for activities other than fuel processing and fabrication
- E. Licenses for 2kg or more of plutonium in unsealed form for activities other than fuel processing and fabrication
- F. Licenses for 200g but less than 2kg of plutonium in unsealed form
- G. Licenses for 350g but less than 5kg of U-235 in unsealed form
- H. Licenses for independent spent fuel storage-
 - 1. At a new site
 - 2. At site of existing nuclear facility

2. SOURCE MATERIAL :

- C. Licenses for UF₆ production plants
- D. Licenses for one buying stations, ion-exchange facilities and processing ores containing source material for extraction of other metals (includes licenses for possession of tailings from source material recovery operations)

NMSS LICENSE FEE INFORMATION

TRANSPORTATION CERTIFICATION BRANCH

Listed below are recommended ceilings in terms of staffhours and contractual costs for transportation package reviews. The bases for the ceilings are discussed in the pages following the table.

<u>Fee Category</u>		<u>Recommended Fee Ceilings</u>	
10. Transportation of Radioactive Material		<u>Staffhours</u>	<u>Contract \$K</u>
A.	New License	1800	100
	Renewal	24	0
	Amendment	400	100
B.	New License	1600	75
	Renewal	24	0
	Amendment	400	75
C.	New License	800	50
	Renewal	16	0
	Amendment	200	50
D.	New License	400	30
	Renewal	16	0
	Amendment	10	30
E.	New License	300	20
	Renewal	16	0
	Amendment	100	20

I. Bases for Recommended Ceilings

10.A Fee Category

New Applications - Lo Est: 800 SH, \$0K; Hi Est: 1800 SH, \$100K

Data is available for two recent cases which range from 884 to 1123 hours for the first review. The applications were withdrawn due to a lack of need for the packages. For both applications it was expected that two more reviews would be needed. These additional reviews would be expected to double the initial review time. Outside consultant services have ranged from \$50K to \$100K for spent fuel casks. The low estimate is based on the assumption of no additional questions.

Renewals - Lo Est: 8 SH, \$0K; Hi Est: 24 SH, \$0K

The data is estimated.

Amendments - Lo Est: 50 SH, \$0K; Hi Est: 400 SH; \$100K

Data ranges from 46 hours to 730 hours for amendments. The 730 hours was unusual and is not expected to be repeated. Outside consultant services may be as high as for a new package. Consultants only review specified items, not the requirements for the entire package.

10B Fee Category

New Applications - Lo Est: 400 SH, \$0K; Hi Est: 1600 SH, \$75K

Data is available for two cases and supports the lower estimate, however, the staff believes that for some packages (spent fuel) the review time will be similar to fee category 11A packages. Outside consultant services may also be similar to fee category 11A packages.

Renewals - Low Est: 8 SH, \$0K; Hi Est: 24 SH, \$0K

The data is estimated.

Amendments - Low Est: 8 SH, \$0K; Hi Est: 400 SH; \$75K

Data for 45 cases range from 4 to 662 hours. The isolated values at the top and bottom ends are judged as not being realistic of future applications. Outside consultant fees are considered similar to a new package design.

10C Fee Category

New Applications - Low Est: 200 SH, \$0K; Hi Est: 800 SH, \$50K

Data is available for one case of 615 hours. After three reviews, it was abandoned. It is estimated 800 SH would be required to complete the action by the staff. The lower hours estimate is based on the previous fee categories. Outside consultant services are also expected to be less than for the previous fee categories.

Renewals - Low Est: 4 SH, \$0K; Hi Est: 16 SH, \$0K

The data is estimated.

Amendments - Low Est: 8 SH, \$0K; Hi Est: 200 SH, \$50K

The data is estimated.

10D Fee Category

New Applications - Low Est: 100 SH, \$0K; Hi Est: 400 SH, \$30K

Data was available for one case of 151 hours. The data is estimated by the staff.

Renewals - Low Est: 4 SH, \$0K; Hi Est: 16 SH, \$0K

The data is estimated.

Amendments - Low Est: 8 SH, \$0K; Hi Est: ¹⁰⁰10 SH, \$30K

Data was available for one case of 64 hours. The data is estimated.

10E Fee Category

New Applications - Low Est: 50 SH, \$0K; Hi Est: 300 SH, \$20K

Data is available for 21 cases which range from 18 to 353 hours. The isolated values at the top and bottom ends are judged as not being realistic of future applications. The outside consultant fee is estimated.

Renewals - Low Est: 4 SH, \$0K; Hi Est: 16 SH, \$0K

The data is estimated.

Amendments - Low Est: 8 SH, \$0K; Hi Est: 100 SH, \$20K

The data is estimated.