



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

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*A63*

SEP 15 1983

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

FROM: Robert E. Browning, Acting Director  
Division of Waste Management

SUBJECT: REVISION TO 10 CFR 170

The enclosed material provides license fee data for LLW and UR facilities and the assumptions used. Our assumptions are consistent with those outlined in your August 19 request. The UR material has been coordinated with URFO.

*RE Browning*  
Robert E. Browning, Acting Director  
Division of Waste Management

Enclosures:  
1. LLW facilities  
2. UR facilities

ESTABLISHMENT OF LICENSE FEE SCHEDULE CEILING  
FOR LICENSING A WASTE SITE UNDER PART 61

Assumptions

- ° Fairly routine site stratigraphy
- ° Humid site
- ° Routine Public Involvement - public meetings but no hearings
- ° Good quality application and no more than two rounds of questions
- ° No special considerations (e.g., weapons plant nearby, hazardous waste site) or sensitive issues
- ° No extraordinary design and operations considerations
- ° EIS prepared by contractor. All other work done in-house.

An EIS performed by a private consultant would consist of approximately  
3 myrs of work at \$120,000/my = \$360,000

Notes

Key personnel in process would be project manager, geologist, hydro-geologist, hydrologist-civil engineer, health physicist, and technical project officer for the EIS contract (likely the environmental scientist or project manager). Each of these people would be required to spend between 1/3 to 1/2 man year on the licensing process and would be pretty much involved throughout the whole process. Other disciplines, as shown in the attachment would be called upon for specific input at various stages of the process. If one of these specialty areas became an "issue" (e.g., Financial Assurances) the staff person representing that discipline could be spending a lot more time on the license review than is shown.

Renewals

A straightforward renewal every five years would require approximately 1/2 the resource commitment needed for processing the original license -

Say 80 man weeks

*3200 hours*

Some sort of environmental appraisal to update the EIS may be required at a cost of  $\frac{1}{4}$  of the EIS

\$100K

### Amendments

Amendments can be anticipated to range from the very simple (e.g., name change) requiring only 2-3 hours of staff time to process to extremely complex (e.g., change in method and scope of operations).

It is well within the realm of probability that three to four staff people could spend over a month apiece working on processing of an amendment.

$4 \times 5 = 20$  man weeks

*= 800 hours*

# NEW APPLICATION FOR A WASTE SITE UNDER PART 61

MAJOR DISCIPLINES (Time in weeks)	Project Mgr	Geologist	Geophysicist	Geochemist	Hydrogeologist	Hydrologist (G)	Civil Engineer	Mech. Eng.	Nuclear Eng.	Health Physicist	Math. Modeler	Sociologist	Economist	Env + Scientist	Other *		
MAJOR ACTIVITIES																	
PRE APPLICATION ASST																	
(1) Reconnaissance	1	1		1	1	1			1				1				
(2) Site Selection	1	1		1	1	1							1				
(3) Site Characterization	1	2		1	1								1				
(4) Other	1												1				
PROCESS APPLICATION																	
Content Overview	2																
Administrative	3																
Site Characterization	2	3	3	3	5	3				5	1			1			
Design	2	1			1	2	3		1	1							
Operations	2				1	2	3		1	1							
Closure and Decommissioning	2	1			1	1	2		1	2	1						
Monitoring	1	1	1		1	1	1		3	2			3	1			
Waste Form / Processing	1			2				3	2	1	2				1		
Environmental Review	4	1	1	1	1	1	1	1	2	3	2	1	4	2			
EIS	4												10	3			
Waste Volume	1							1	3	2							
Financial Assurance	1					1						4		1			
Public Inquiries	2	1			1		1		1			1	1				
Other Inquiries	3								1			1	1	1			
Public Meetings	1	1			1				1				1				
State & Local Particip.	2										1	1	3	3			
Reports & Manifests							1	1	2								
QA/QC Procedures	1													2			
Radiation Safety	1								3								
Applicant Qualifications	2																
Institutional Arrangement	1																
Total Time per Discipline	38	9	5	6	12	10	11	7	9	19	14	5	8	23	15	=	191 man wks = 7650 hours
																	191 / 52 wks/yr = 3.67 man years

Not included in manpower requirements to establish License Fee Ceiling

Consultant Contract not Envt Sci as Proj. Mgr

Note: \* Includes chemist, biologist, soil scientist, meteorologist and various regional personnel  
Work week estimates are for a full 40-hour technical work week (no overhead included)



414.12.1/MH/83/09/02/0

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	<u>New</u>	<u>Renewal</u>	<u>Amendment</u>
2A-Mills	2000 hours \$225K (341K)	1300 hours 30K (95K)	500 hours 15K (44K)
2B-Commerical In-Situ	1600 hours 175K (268K)	1000 hours 15K (63K)	500 hours 15K (44K)
2B-R & D In-Situ	675 hours 15K (54K)	450 hours 5K (31K)	340 hours 5K (25K)
2B-Heap Leach	675 hours 15K (54K)	450 hours 5K (31K)	340 hours 5K (25K)
2D-Ore Buying and Ion Exchange	300 hours 5K (22K)	200 hours 5K (17K)	230 hours 5K (18K)

2E All other- Full Cost

Assumptions2A MillsNew

Plateau Res- 1062 hours: OLD  
 Energy Fuels- 2170 OLD  
 Conoco- 3122 hours/ \$222K - withdrawn, thru DEIS

Mills about 30% harder than Com In-Situ

Ogle - 1862 hours/ \$185K  
 Teton - 1640 hours/ \$227K-almost done

Renewals

Exxon - 1321 hours/ \$8K  
 Petro (app.90%) - 1459 hours/\$2K - harder than normal

App.65% of staff hours as for new application;no EIS

Amendments

UCC Gas Hills-475 hours/\$9.5K  
various other amendments have  
run app. 500 hours

2B Commercial In-Situ

New Ogle - 1862 hours/\$185K  
Teton - 1640 hours/\$227K - almost done

Renewals No data

Use the same ratio of new/renewal as  
mills - 65%

Amendments

Ogle 520 hours  
Wyom. Minerals 440 hours

2B R & D In-Situ

New 5 recent cases have averaged  
668 hours

Renewals 4 recent cases have averaged  
465 hours

Amendments

Assume an amendment for a new well  
pattern which will require about half  
the time of a new application

2B Heap Leach

The effort is similar to that  
for an R & D In-Situ

2D One Buying and Ion Exchange

New

Energy Fuels - 182 hours  
Plateau Resources - 435 hours  
Kerr McGee - 270 hours

Renewal

No data  
Use the same ratio of new/renewal  
as mills - 65%

Amendments

Plat Res - 170 hours  
Brush Wellman - 233 hours