VOID SHEET

TO: License Fee Management Branch

FROM: RIII - CHARLES F. GILL

SUBJECT: VOIDED APPLICATION

Control Number: 300250

Applicant: Babcock & Wilcox Technology Incorporated

License Number: 34-03043-03

Docket Number: 030-05693

Date Voided: 6/17/99

Reason for Void: Licensee requested revisions to the current decommissioning cost estimate and financial instrument. Voided because request needs to be sent to Ohio State

Charles F. Gill 6/17/99
Signature Date

Attachment:
Official Record Copy of
Voided Action

FOR LFMB USE ONLY

✓ Refund Authorized and processed

___ No Refund Due

___ Fee Exempt or Fee Not Required

Comments: _____ Log completed ✓

_____ Processed by: SAC 7/1/99



020038

ML30

JAW

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03610
Status Code: O
Fee Category: 3L 2C 1D
Exp. Date: 20060331
Fee Comments: 2C/1D EFF W/AMD 26 021799
Decom Fin Assur Reqd: Y

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
   Applicant/Licensee: MCDERMOTT TECHNOLOGY INCORPORATED
   Received Date: 19990604
   Docket No: 3005693
   Control No.: 300250
   License No.: 34-03043-03
   Action Type: Fin. Assurance

2. FEE ATTACHED
   Amount: ---0---
   Check No.: ---------

3. COMMENTS

Signed D. Hersey
Date 6-11-99

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /__/)

1. Fee Category and Amount: ----------

2. Correct Fee Paid. Application may be processed for:
   Amendment ----------
   Renewal ----------
   License ----------

3. OTHER ----------
   ----------

Signed ----------
Date ----------

**McDermott Technology, Inc.**
a McDermott company
ISO 9001
Research and Development Division
1562 Beeson Street
Alliance Ohio 44601-2196
(330) 821-9110
FAX: (330) 823-0639

May 27, 1999

Mr. Charles F. Gill
Materials Licensing Branch
U.S. Nuclear Regulatory Commission
Region III
801 Warrensville Road
Lisle, IL 60532-4351

License Number: 34-03043-03 Docket Number: 030-05693

License Number: SUB-1259 Docket Number: 040-08474

Dear Mr. Gill:

On August 18, 1993, McDermott Technology, Inc.(MTI), formerly known as Babcock & Wilcox, Inc., Research & Development Division, submitted a Decommissioning Funding Plan for the Alliance Research Center (ARC) facility located in Alliance, Ohio at 1562 Beeson Street. Please find attached our submittal of a revised cost estimate for our Decommissioning Funding Plan. This revised cost estimate is being submitted because of changes in facility conditions and expected future decommissioning procedures.

Our current comprehensive decommissioning cost estimate is $4,827,051.00. This cost estimate was prepared by an outside engineering consultant with input from MTI personnel. The attached cost estimate has been prepared on a cost estimating table included as Appendix F of Regulatory Guide 3.66, Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72. The major reasons for the significant increase in the cost estimate are as follows:

1. Characterization of portions of the ARC facility in preparation for remedial action.
2. Further examination of historical records and expansion of past process knowledge
3. Improved radiation measurement instrumentation.
4. Enhanced radiation protection program, specifically in the areas of surveillance survey methodology and technique.

An agreement between the NRC and the State of Ohio to transfer regulatory authority for MTI/USNRC licenses for byproduct and source material is anticipated to occur in July 1999. In conjunction with the transfer of this regulatory authority and upon notification by USNRC of the effective date of agreement, MTI will re-issue the decommissioning financial assurance instrument naming the State of Ohio as the beneficiary. No other provisions of the instruments will be modified at this time.

RECEIVED
JUN 04 1999
REGION III

Pm; 5-27-99

JUN 4 1999

301250

MTI is in the process of obtaining a letter of credit for the amount specified above as the financial assurance instrument that will be executed and provided to the State of Ohio. If the USNRC has any comments on this submittal that could affect the value of the cost estimate, MTI would appreciate a timely response.

If you have any questions or need any additional information, please contact me at 330-829-7878 or contact N.G Sandru, Manager, Facilities, QA & Safety, at 330-829-7331.

Sincerely,

McDERMOTT TECHNOLOGY, INC.
Research & Development Division

Rodger W. McKain
Vice President and General Manager

Attachment

## ALLIANCE DECOMMISSIONING FUNDING PLAN - APPENDIX F SUMMARY

**Table 1 - Planning & Preparation (Work Days)**

| Manager | Rad Con Spec | H.P. | Technicians | Clerical | Engineer | Proj Tech Advisor | Other | Total | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| 62 | 71 | 156 | 0 | 110 | 434 | 80 | 74 | 987 | $383,464 |
| | | | | | | | | Other | $277,940 |
| | | | | | | | | | $661,404 |

**Table 3 - Decontamination/Dismantling Radioactive Facility Components (Work Days)**

| Manager Foreman | Rad Con Spec | H.P. | Technicians | Clerical | Engineer | Proj Tech Advisor | Other | Total | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| 98 | 132 | 555 | 716 | 0 | 292 | 37 | 24 | 1,854 | $593,807 |
| | | | | | | | | Other | $116,682 |
| | | | | | | | | | $710,489 |

**Table 4 - Equipment & Supplies**

| | Total Cost |
|---|---|
| Other | $515,920 |

**Table 5 - Container Cost**

| | Total Cost |
|---|---|
| Other | $46,080 |

**Table 6 - Transportation Cost**

| | Total Cost |
|---|---|
| Other | $80,500 |

**Table 7 - Burial Cost**

| | Total Cost |
|---|---|
| Other | $865,000 |

**Table 8 - Restoration of Contaminated Areas**

| | Total Cost |
|---|---|
| Other | $25,925 |

**Table 9 - Final Radiation Survey (Work Days)**

| Manager Foreman | Rad Con Spec | H.P. | Technicians | Clerical | Engineer | Proj Tech Advisor | Other | Total | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| 16 | 632 | 3263 | 151 | 0 | 45 | 13 | 30 | 4,150 | $1,421,227 |
| | | | | | | | | Other | $218,400 |
| | | | | | | | | | $1,639,627 |

**Table 10 - Site Stabilization, Long Term Surveillance (Work Days)**

| Manager Foreman | Rad Con Spec | H.P. | Technicians | Clerical | Engineer | Proj Tech Advisor | Other | Total | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| 3 | 10 | 10 | 88 | 0 | 16 | 10 | 17 | 154 | $61,506 |
| | | | | | | | | Other | $220,600 |
| | | | | | | | | | $282,106 |

**TOTAL**

| Manager Foreman | Rad Con Spec | H.P. | Technicians | Clerical | Engineer | Proj Tech Advisor | Other | Total | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| 179 | 845 | 3984 | 955 | 110 | 787 | 140 | 145 | 7,145 | $2,460,004 |
| | | | | | | | | Other | $2,367,047 |
| | | | | | | | | Project Total | $4,827,051 |

# APPENDIX F

## COST ESTIMATING TABLES

### 1. Planning and Preparation

Table 1
Work Days

| | Task | Manager | Project Tech Advisor | H.P. | Clerical | Engineer | Other | Total | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| 1. | Preparation of Documentation for Regulatory Agencies | 22 | 27 | 21 | 10 | 131 | | 211 | $85,811 |
| 2. | Submittal of Decommissioning Plan to NRC when required by 10 CFR 30.36(c)(2), 40.42(c)(2), or 70.38(c)(2)* | 24 | 30 | 102 | 25 | 172 | | 353 | $135,884 |
| 3. | Development of Work Plans | 14 | 17 | 34 | 70 | 105 | 50 | 300 | $104,314 |
| 4. | Procuring of Special Equipment | | | | | | | | |
| 5. | Staff Training | | | | | | | | |
| 6. | Characterization of Radiological Condition of the Facility (Including soil and tailings analysis or ground-water analysis, if applicable) | 2 | 6 | 70 | 5 | 26 | 14 | 123 | $47,455 |
| 7. | Other | Reproduction, travel, software, equipment, sampling | | | | | | - | $277,940 |
| 8. | Total | 62 | 80 | 227 | 110 | 434 | 74 | 987 | $661,404 |

* For assistance in preparation of cost estimate for 10 CFR Part 72, consult NRC Office of Nuclear Material Safety and Safeguards.

COST ESTIMATING TABLES
(Continued)

Table 2
Unit Cost for Workers

| Position | Basic Salaries ($/yr) | Overhead Rate (%) | Worker Cost/year |
|---|---|---|---|
| Supervisor | $ 70,720.00 | 20 | $ 84,864.00 |
| Foreman | $ 70,720.00 | 20 | $ 84,864.00 |
| Craftsman | $ 41,600.00 | 20 | $ 49,920.00 |
| Technician | $ 70,720.00 | 20 | $ 84,864.00 |
| Health Physicist* | $104,000.00 | 20 | $124,800.00 |
| Laborer | $ 41,600.00 | 20 | $ 49,920.00 |
| Clerical | $ 29,120.00 | 20 | $ 34,944.00 |
| Other (Engineer) | $ 70,720.00 | 20 | $ 84,864.00 |

* Includes Project Manager, RadCon Tech, HP Engineer, RadCon Specialist

2. Decontamination and/or Dismantling of Radioactive Facility Components*

| | No. | Dimensions | | No. | Dimensions |
|---|---|---|---|---|---|
| Glove Boxes | | ($m^3$) | Amount of Floor Space | 2 | 546 ($m^2$) |
| Fume Hood | 20 | 145 ($m^3$) | Ventilation Ductwork | 1 | 7 ($m^3$) |
| Hot Cells | | ($m^3$) | Amount of Wall Space | 8 | 550 ($m^2$) |
| Lab Benches | | (m) | Other (roof & | 3 | 158 ($m^3$) |
| Sink and Drain | 14 | 610 ($m^3$) | equipment) | | |

Table 3
Work Days

| Task | Manager | Proj. Tech Advisor | Technicians | H.P | Engineer | Other | Total | Total Cost |
|---|---|---|---|---|---|---|---|---|
| 1. Decon/Dismantle Major Components and/or Processing and Storage Tanks | 36 | | 279 | 285 | 9 | | 609 | $170,166 |
| 2. Decon/Dismantle Laboratories, Fume Hoods, Glove Boxes, Benches, etc. | 4 | | 44 | 15 | 1 | | 64 | $ 17,218 |
| 3. Decon/Dismantle Waste Areas<br>- Radwaste Areas<br>- Scrap Recovery<br>- Other | 5 | 3 | 64 | 40 | 7 | | 119 | $ 34,968 |

* Indicate whether component is to be decontaminated to unrestricted release levels or packaged and disposed of at a low-level waste site. – **All components will be volume reduced, packaged, and disposed as LLRW.**

APPENDIX F

COST ESTIMATING TABLES

(Continued)

| | Task | Manager Foreman | Project Tech Advisor | Technicians | H.P | Engineer | Other | Total | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| 4. | Decon/Dismantle Service Facilities<br>- Maintenance Shop<br>- Decontamination Areas<br>- Ventilation Systems<br>- Other | 18 | 19 | 118 | 85 | 140 | | 380 | $218,717 |
| 5 | Decon/Dismantle Waste Treatment Facilities and Storage Areas on the Site *Including exhume and package contaminated soil and tailing, if any)<br>- Fluoride Lagoons<br>- Nitrate Lagoons<br>- CaF2 Waste Recovery<br>- Ground Water Restoration<br>- Other | 13 | | 80 | 55 | | 12 | 160 | $56,594 |
| 6 | Monitor for compliance, reclean and remonitor, if necessary | 18 | 3 | 114 | 188 | 16 | | 339 | $96,144 |
| 7. | Other (Travel, sample analysis, etc. | 4 | 12 | 17 | 19 | 119 | 12 | 183 | $116,682 |

Table 4

| Equipment/Supply | Quantity | Cost |
|---|---|---|
| RAD Samples | 180 | $21,600 |
| HAZ Samples | 65 | $195,000 |
| Tank Process System | 1 | $99,000 |
| Drains/Sewer Decon/Inspect | 1 | $107,000 |
| Excavate, Drilling Rig | 1 | $47,720 |
| Fence Remove/Replace | 1 | $1,500 |
| Decontamination Equipment | 5 | $44,100 |

APPENDIX F

COST ESTIMATING TABLES

(Continued)

3. Packaging, Shipping, and Disposal of Radioactive Wastes

Table 5

| Waste Type | Volume ($m^3$) | No. of Containers | Type of Containers | Unit Cost of Container | Cost of Container |
|---|---|---|---|---|---|
| Soils/Debris | 155.7 | 55 | B-25 | $512 | $28,160 |
| Metals | 99.1 | 35 | B-25 | $512 | $17,920 |
| | | | | | |
| | | | | | |
| Total | 254.8 | 90 | | | $46,080 |

Table 6

Distance Shipped 2,000 (miles)

Unit cost for shipment $1.75 ($/mile/truckload)

Additional charges

Overweight NA ($/mile)

Surcharges NA($/mile)

| Waste Type | No of Shipments | Unit Cost for Shipping | Distance Shipped | Surcharge | Transportation Cost |
|---|---|---|---|---|---|
| Soils/Debris | 14 | $3,500 | 2000 | N/A | $49,000 |
| Metals | 9 | $3,500 | 2000 | N/A | $31,500 |
| | | | | | |
| | | | | | |
| Total | 23 | | | | $80,500 |

Table 7

Burial Charges $3,003.53 ($/$m^3$)

Surcharges

Per container NA ($)

Disposal NA ($/$m^3$)

| Waste Type | Burial Volume ($m^3$) | Unit Cost of Burial | Surcharge | Burial Cost |
|---|---|---|---|---|
| Soils/Debris | 155.65 | $3,003.53 | N/A | $467,500 |
| Metals | 99.05 | $3,003.53 | N/A | $297,500 |
| Special | (Source Matl.) | | | $100,000 |
| | | | | |
| Total | 254.7 | | | $865,000 |

# APPENDIX F

## COST ESTIMATING TABLES

(Continued)

4. Restoration of Contaminated Areas on Facility Ground

Table 8

| Task | Supervisor | Foreman | H P. | Clerical | Total | Total Cost |
|---|---|---|---|---|---|---|
| Backfill and Restore Site | | | | | | $5,925 |
| Replace Drains | | | | | | $20,000 |
| | | | | | | |

5. Final Radiation Survey

Table 9

| Task | Manager Foreman | HP | Work Days Decon Technician | Engineer | Other | Total | Total Cost |
|---|---|---|---|---|---|---|---|
| Final Rad Survey | 16 | 3895 | 151 | 45 | 43 | 4150 | $1,421,227 |
| Other Travel, Sampling | | | | | | | $218,400 |
| Total | 16 | 3895 | 151 | 45 | 43 | 4150 | $1,639,627 |

6. Site Stabilization, Long-Term Surveillance

Table 10

| Task | Manager | Technicians | Engineer | HP | PTA | Other | Total | Total Cost |
|---|---|---|---|---|---|---|---|---|
| Site Stabilization | 3 | 88 | 16 | 20 | 10 | 17 | 154 | $61,506 |
| Travel, Sample Analysis, Monitoring Wells | | | | | | | | $220,600 |
| | | | | | | | | |

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

JUN 18 1999

Nick G. Sandru
Manager, Facilities, QA & Safety
McDermott Technology Incorporated
Research and Development Division
1562 Beeson Street
Alliance, OH 44601-2196

Dear Mr. Sandru:

This refers to: (1) your May 27, 1999 application for a revision to your current decommissioning cost estimate, and (2) our telephone conversation on June 17, 1999. During the telephone conversation, you indicated that you were not ready to respond to the questions discussed regarding the need for additional information before a review of your request could be scheduled. At a minimum we would need the following:

a. A full decommissioning funding plan (DFP) with a complete cost breakdown, including justifying each labor cost category.

b. 25% contingency funding.

c. No credit for Salvage Value.

d. Justify not using the NUREG/CR-1754, Addendum 1 cost estimate method.

Even if the NRC had already received the above information, it might take the NRC financial assurance contractors and OGC up to two months to review the proposal. During this period of time, Ohio would have become an Agreement State. Thus Ohio would need to continue the review. The second part of the process would involve revising the letter of credit and the Standby Trust Agreement. We agreed that it would be better if the NRC voids your current request. This would allow you to present a more detailed request to Ohio.

You agreed to have the request voided and to work with Ohio (Marsha Howard) to finalize the DFP cost estimate and to revise the letter of credit amount. I told you that your requests and the voided actions would remain in your licensing file when it is transferred to Ohio. I agreed to send you a void letter with enclosures to assist you in reapplying to Ohio.

As we discussed during the telephone conversation, we have voided your request for a revision to your current decommissioning cost estimate. This action is without prejudice to resubmission to the State of Ohio.

300250

If you have any questions or require clarification on any of the information stated above, you may contact us at (630) 829-9887.

Sincerely,

Original signed by
Charles F. Gill
Materials Licensing Branch

License Nos. 34-03043-03 and SUB-1259
Docket Nos. 030-05693 and 040-08474

Enclosures: 1. NUREG/CR-1754
2. NUREG/CR-1754, Addendum 1

**To receive a copy of this document, indicate in the box: "C"** = Copy without attachment/enclosure **"E"** = Copy with attachment/enclosure **"N"** = No copy

| OFFICE | DNMS/RIII | C | DNMS/RIII | | | | | |
|---|---|---|---|---|---|---|---|---|
| NAME | CGill/ | | | | | | | |
| DATE | 06 / 17 /99 | | | | | | | |

OFFICIAL RECORD COPY

# CONVERSATION RECORD

TIME 3:00 | DATE 6/17/99

○ VISIT ○ CONFERENCE X TELEPHONE

○ INCOMING
X OUTGOING

NAME OF PERSON(S) CONTACTED OR IN CONTACT | ORGANIZATION (OFFICE, DEPT.ETC.) | TELEPHONE NO.
Nick G. Sandru QA & Safety Manager | McDermott Technology, Inc. | 330-829-7331

SUBJECT
May 27, 1999 letter requesting a revision to the current decommissioning cost estimate.
License Nos. 34-03043-03, 030-05693, 300250 & SUB-1259, 040-08474, 300251.

SUMMARY
I explained to Mr. Sandru and others on the conference call, that the NRC would need additional information before a review of their request could be scheduled. At a minimum we would need the following:

a. A full decommissioning funding plan (DFP) with a complete cost breakdown, including justifying each labor cost category.

b. 25% contingency funding.

c. No credit for Salvage Value.

d. Justify not using the NUREG/CR-1754, Addendum 1 cost estimate method.

Even if the NRC had already received the above information, it might take the NRC financial assurance contractors and OGC up to two months to review the proposal. During this period of time, Ohio would have become an Agreement State. Thus Ohio would need to continue the review. The second part of the process would involve revising the letter of credit and the Standby Trust Agreement. It would be better if the NRC voids your current request. This would allow you to present a more detailed request to Ohio.

Mr. Sandru agreed to have the request voided and to work with Ohio (Marsha Howard) to finalize the DFP cost estimate and to revise the letter of credit amount. I told him that his request and the voided actions would remain in his licensing file when it is transferred to Ohio. I agreed to send a void letter with enclosures to assist him in reapplying to Ohio.

ACTION REQUIRED

Send void letter to licensee with decommissioning financial assurance guidance enclosures.

NAME OF PERSON DOCUMENTING CONVERSATION | SIGNATURE | DATE
Charles F. Gill | Charles F. Gill | 6/17/99

ACTION TAKEN

Void letter sent to licensee on 6/17/99.

SIGNATURE | TITLE | DATE
Charles F. Gill | Sr. Health Physicist | 6/17/99