

Received w/Ltr Dated 5/30/90

- 1 -

MINUTES OF THE 2/15/90 BIMONTHLY QUALITY ASSURANCE MEETING

The bimonthly meeting of the staff of the United States Nuclear Regulatory Commission (NRC), representatives of the United States Department of Energy (DOE) and the State of Nevada (NV) to discuss issues of mutual interest with regard to quality assurance (QA) was held on February 15, 1990 at NRC Headquarters. While representatives of the Affected Units of Local Government were notified of the meeting, none were in attendance. An attendance list is included as Attachment 1.

The continuing problem of negative perceptions held by various members of the scientific community with regard to QA had been addressed at the previous meeting. Robert E. Browning, Director of the NRC Division of High-Level Waste Management, spoke to this problem in his opening remarks. He stressed the importance NRC places on QA in the repository program. He also stated that the implementation problems which were manifested in the concerns raised by a group of scientists at the United States Geologic Survey (USGS) need to be addressed and resolved.

After the opening remarks, DOE discussed revisions to the major programmatic QA documents, schedules and milestones to meet the program changes in the November 1989 "Report to Congress on Reassessment of the Civilian Radioactive Waste Management Program." The first topic discussed was changes to major QA documents (see Attachment 2). A major near-term activity involves revising the QA program document hierarchy. This will result in the reformatting of the QA Requirements Document (QARD) such that the Yucca Mountain Project (YMP) QA Plan (QAP) 88-9, which has been the top-level YMP Office (YMPO) document, will no longer be necessary. Rather, the QARD will contain appendices which speak to the Mined Geologic Disposal System, High-Level Waste Form Production, Monitored Retrievable Storage, and transportation QA programs. It is anticipated that Revision 3 of the QARD will be submitted to NRC by the middle of April. DOE reiterated a comment made at the last QA meeting, that this process will not result in any diminution of commitments. The NRC staff noted that maintaining levels of commitment should be dependent on whether or not the current level of commitment was appropriate and effective. The QA Program Description (QAPD) which will be used by the Office of Civilian Radioactive Waste Management (OCRWM) and YMPO will also be revised and submitted to NRC. It is anticipated that the project participant QA plans will not have to be resubmitted to NRC.

Changes to schedules and milestones in the QA program resulting from the program changes were also discussed. The last two pages of Attachment 2 pertain to this discussion, as does Attachment 3 which was used in the NRC staff presentation. The fundamental question discussed here was what was involved in achieving the new DOE milestone (included in the current DOE Project Decision Schedule) which calls for NRC acceptance of the DOE QA program by September 14, 1990. Previous agreements between NRC and DOE on this subject were related to the lifting of the NRC staff's QA objection from the Site Characterization Plan (SCP). It was agreed that this new milestone would simply involve NRC recognition that the DOE participants' QA program had reached an appropriate phase of development to allow for further implementation. It was reiterated that this activity is considered to be separate from the lifting of NRC's QA objection. The NRC staff listed five activities which need to be

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accomplished before the SCP objection could be lifted. These include (for each participant): resolution of those deficiencies identified by DOE auditors which will impact new site characterization activities; identification of the extent of program implementation since the NRC-observed DOE audit; a statement as to whether or not DOE can now determine the effectiveness of the QA program (and if so, what determination has been made); a statement of what areas of the QA program are still on hold (and the steps being taken to resolve the problems in these areas); and a statement of DOE's current position on the acceptability of the QA program.

Among the remaining activities which must occur before NRC can consider taking any definitive action on the September 14, 1990 milestone are the submittal of the Revision 3 of the QARD and Revision 2 of the QAPD and the associated DOE qualification audits. DOE had revised document review schedules to reflect quicker turnaround times than had been previously agreed to by both agencies. The NRC staff stated that every effort would be made to meet the new time span. It was agreed that the reduced time span would be reconsidered by both NRC and DOE. The audit schedule was also considered since the OCRWM and YMPO audits are scheduled for June and July respectively. The NV representative wondered how this would impact the USGS audit. DOE did not feel that there would be an impact, however, the NV representative was concerned about her ability to cover three potentially overlapping audits with limited staff resources.

A question was also raised about when OCRWM would schedule the audits of the glass producers, West Valley Demonstration Project and the Defense Waste Processing Facility. DOE stated that, due to the impending reorganization, a definitive answer could not be given at this time. This question and remaining details of the revised program schedules will be presented in another NRC-DOE QA meeting to be held in March 1990.

The next topic discussed was the update to the DOE audit/surveillance schedule (Attachments 4 and 5). While there was little change from previous versions of the audit schedule, a concern was raised about surveillances. The NV representative mentioned that she was still not being notified in a timely manner of updates and changes to the surveillance schedule. DOE expressed surprise that this problem had not been resolved. A suggested solution was notification of changes via electronic facsimile transmission (fax).

The DOE position on the need for further audits or surveillances at Los Alamos National Laboratory (LANL) and USGS was presented next. This was in response to a question raised at the the previous bimonthly QA meeting. DOE stated that a second audit of LANL was scheduled for March 26, 1990. In the case of USGS, the NRC staff had found the DOE audit of the USGS program to be marginally effective and had not identified significant deficiencies with the implementation of the USGS QA program. DOE feels that the appropriate action to be taken for the USGS is a series of surveillances to complement the audit.

A discussion of the proposed NRC/DOE QA Workshop was next. Attachment 6 was used by the NRC staff. The staff feels that there is an immediate need for NRC and DOE to meet with the geotechnical community to discuss QA implementation and the need for flexibility in program implementation to meet the QA requirements of 10 CFR Part 60. DOE was in agreement with the need for the workshop and the

need to resolve both the problems and the perceptions. There was a fundamental disagreement regarding timing of the workshop. The NRC staff and its management feel that this activity should have a high priority and that the workshop should be held in the Spring of 1990. The OCRWM executive committee, while agreeing with the need for the workshop and its priority, determined that the earliest date which they could support and still meet the commitments discussed above, would be mid-September 1990. It was agreed that the meeting participants could not resolve the question of timing and that it would be taken up by appropriate NRC and DOE management.

An update on the status of DOE's resolution of the Privacy Act issue was the next item considered. The Federal Register notice was scheduled to be submitted for Congressional review and publication by the middle of March 1990. If adopted, the proposed systems will allow the QA directors of participant organizations to maintain separate systems for records related to the qualification and verification of qualification (including training records) of individuals involved in the repository program. These records would be accessible to NRC, DOE, NV, and the LGs. The status of USGS with regard to this issue was raised by the NV representative. A representative of the USGS explained that since USGS is part of the United States Department of Interior it will be necessary for a similar regulatory change to be made by that agency. An attempt is being made to carry out a process in parallel with, or at least modelled, on DOE's.

Next, the NRC staff discussed its plans for observing DOE audits and for conducting on-site visits and independent audits. While the NRC staff expects to observe the air cooled core drilling tests at Apache Leap, Arizona, a date for this on-site visit has not yet been established. The NRC staff also discussed plans to carry out an independent audit. While an independent audit of USGS is definitely under consideration, it will not be scheduled until more work covered by the QA program is being carried out. The NRC audit would occur after the annual DOE audit has been conducted. There is also interest in doing an audit of the alternative design studies at Sandia National Laboratory. A tentative time-frame for carrying out this audit is late summer or early autumn of 1990.

The QA Open Items were discussed after the audit discussion. Attachments 7 and 8 were used by NRC. A unified numbering system has been instituted in which DOE and NRC will use the same numbers. Each year, each item number will be followed with a two digit suffix representing the calendar year (e.g. 1-90). One item of particular concern to NRC was Open Item 7-90, Qualification of Existing Data. DOE promised to provide NRC with information on this. NRC used Attachment 8 to illustrate the type of detail requested for DOE response to NRC audit observations.

The NV's representative's concern about USGS transducer data was the next item considered. Some instruments had been set on daylight savings time in 1983 without properly recording of this change. The USGS says that it will not use this data. Procedures have been changed to ensure that time monitoring problems will not be repeated.

Another NV concern which was raised at the December QA meeting had to do with an item in the TPO*action log which had not been tracked. The item dealt with whether it was necessary to certify reviews or reviewers. It had been inadvertently removed from the log without resolution being recorded. The resolution, which has now been recorded, is that reviewers must be qualified.

The final presentation was an overview on the organizational status of the DOE Vitrification Projects (Attachment 9). Details, dates and milestones for activities in this program are still pending since the vitrification program is part of the major reorganization currently taking place at DOE. The presentation described how the vitrification program was situated in the DOE Office of Environmental Restoration and Waste Management. An overview of pertinent documents was also provided. As discussed earlier, a separate appendix to the QARD will be developed for the vitrification projects and submitted to NRC for review and acceptance.

The next QA meeting was scheduled for March 21, 1990. Possible agenda items include:

The DOE Document Hierarchy

NRC/DOE Schedule Agreement

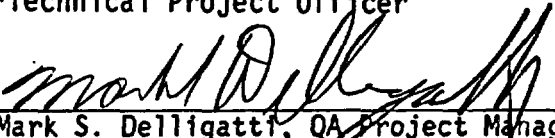
Vitrification Program QA Schedules


NRC/DOE QA Workshop

In closing remarks, DOE mentioned that Gordon Appel was leaving OCRWM and that Linda Desell and Ralph Stein would be carrying out his responsibilities until a permanent replacement is chosen. DOE requested a determination of whether or not conduct of the QA workshop would be a condition used by NRC in reviewing the OCRWM QA program. NRC, in its closing remarks, assured DOE that this was not a condition.

NV did not submit a written statement for inclusion in these minutes.

*Technical Project Officer


 Mark S. Delligatti, QA Project Manager
 Repository Licensing and Quality
 Assurance Project Directorate
 Office of Nuclear Material Safety
 and Safeguards, NRC


 Corinne Macaluso
 Repository Licensing Branch
 Office of Civilian Radioactive
 Waste Management, DOE

NRC/DOE QA MEETING
February 15, 1990

Attendance List

<u>NAME</u>	<u>AFFILIATION</u>	<u>PHONE</u>
R. Browning	NRC	492-3408
Tom Colandrea	EEI-UWASTE	619 487-7510
Jim Conway	NRC/HLWM	FTS 492-0453
Ken Hooks	NRC/HLWM	FTS 492-0447
Chris Henkel	EEI/UWASTE	202 778-6693
Joe Anderson	PDC/DOE	615 482-9004
Bruce Mabrito	CNWRA	512 522-5149
Corinne Macaluso	DOE HQ	202 896 2837
Ray Wallace	USGS HQ/DOE HQ	202 586 1244
Gene Roseboom	USGS DIR.OFF.	703 648 4423
Teek Verma	NRC/HLWM	FTS 492-3465
Bill Belke	NRC/HLWM	FTS 492-0445
Dick Stockman	BDM INTERNATIONAL	353-0040
D. James Davis	BDM INTERNATIONAL	353 8756
Susan Zimmerman	State of Nevada	702 687-3744
Timothy Johnson	DOE HQ	202 586 5969
Mark Delligatti	NRC/HLWM	FTS 492-0430
Dwight Shelor	DOE HQ	FTS 896-7220
Nancy Voltura	DOE/YMPO QA	FTS 544-7972
Donald Horton	DOE/YMPO QA	FTS 544-7504
Jim Blaylock	DOE/YMPO	FTS 544-7913
Keith McConnell	NRC/HLWM	FTS 492-0552
Amelia Arceo	SAIC/YMPO	FTS 544-7737
Ray D. Walton, Jr.	ANL/DOE	948-0698
Mark Senderling	DOE HQ	FTS 896 2878
P. Stephen Schaus	WESTINGHOUSE HANFORD	FTS 444 8365
Bruce Nicoll	DOE RL	FTS 444-6006
Thomas Gutmann	DOE HQ	FTS 233 5343
Stan Goldsmith	WESTON	202 646-6641
Bill Pearson	DOE/SR-DWPF	FTS 237-1066
Linda Desell	DOE HQ	FTS 586-1464
Jim Kennedy	NRC/HLWM	FTS 492-3402
John Linehan	NRC/HLWM	FTS 492-3387

GUIDANCE ON ACTIONS NEEDED
FOR STAFF TO COMPLETE EVALUATION
OF AN ORGANIZATION'S QA PROGRAM

1. RESOLVE DEFICIENCIES IDENTIFIED BY DOE AUDITORS
 - ORGANIZATION COMPLETES CORRECTIVE ACTION
 - DOE SURVEILLANCE VERIFIES CORRECTIVE ACTION
2. IDENTIFY EXTENT OF PROGRAM IMPLEMENTATION SINCE AUDIT:
 - AREAS OF ACTIVITY
 - END PRODUCTS PRODUCED
 - SURVEILLANCES AND AUDITS CONDUCTED (INTERNAL AND EXTERNAL)
3. STATE WHETHER EFFECTIVENESS OF QA PROGRAM CAN NOW BE DETERMINED, AND IF SO, WHAT THE DETERMINATION IS.
4. STATE WHAT AREAS OF THE QA PROGRAM ARE STILL ON HOLD, SUCH AS SOFTWARE QA, QA LEVEL ASSIGNMENTS, OR PRIVACY ACT RELATED ISSUES, AND STEPS TO BE TAKEN TO RESOLVE.
5. STATE DOE POSITION AS TO ADEQUACY OF QA PROGRAM AT THIS TIME (I.E. OK FOR FURTHER IMPLEMENTATION, OK FOR SITE CHARACTERIZATION, ETC.)

STATUS OF DOE QA PROGRAM IMPLEMENTATION

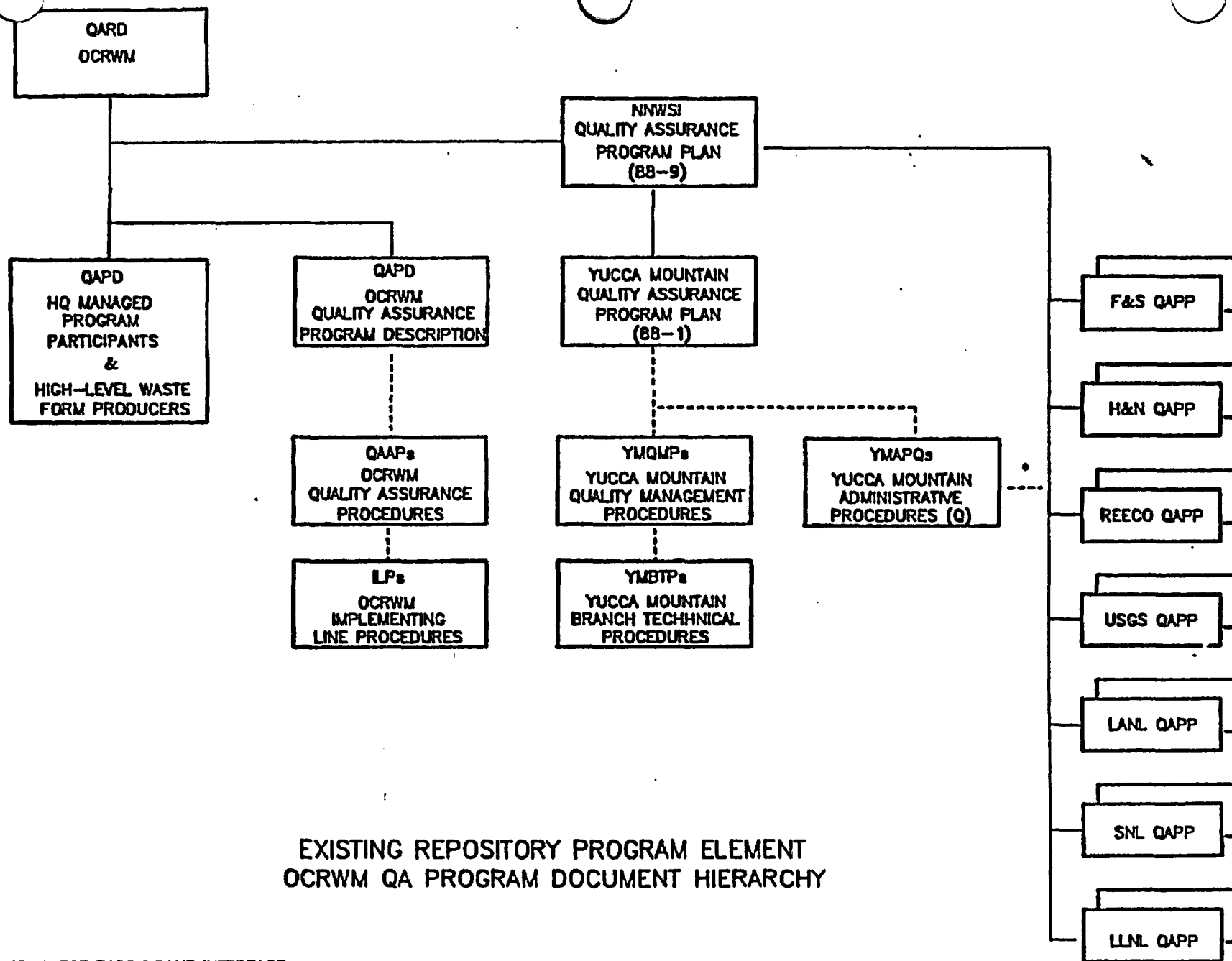
QA PROGRAM PLAN					QUALIFIED QA PROGRAM		
ORGANIZATION	DOE SUBMITS	NRC COMMENTS	DOE REVISES (1)	NRC ACCEPTS	QUALIFICATION AUDITS	DOE ACCEPTS (2)	NRC ACCEPTS
OCRWM	(QARD) APR. 13, 1990	MAY 11, 1990	JUN 1, 1990	JUN 20, 1990	JUN 1990	AUG 1990	
OCRWM	(QAPD) APR 13, 1990	MAY 11, 1990	JUN 1, 1990	JUN 20, 1990			
YMPO	NA	NA	NA	NA	JUL. 1990	AUG. 1990	
F&S	FEB. 21, 1989 COMPLETE	MAR. 22, 1989 COMPLETE	AUG. 11, 1989 COMPLETE	OCT. 24, 1989 COMPLETE	APR 10-14, '89 COMPLETE	PENDING	
H&N	MAR. 3, 1989 COMPLETE	APR. 26, 1989 COMPLETE	AUG. 11, 1989 COMPLETE	OCT. 3, 1989 COMPLETE	APR 24-26, '89 COMPLETE	PENDING	
SNL	APR. 14, 1989 COMPLETE	JUN. 26, 1989 COMPLETE	SEP. 7, 1989 COMPLETE	OCT. 24, 1989 COMPLETE	SEP. 11, 1989 COMPLETE	PENDING	
USGS	APR. 14, 1989 COMPLETE	JUN. 20, 1989 COMPLETE	SEP. 7, 1989 COMPLETE	OCT. 24, 1989 COMPLETE	AUG. 14, 1989 COMPLETE	PENDING	
REECO	FEB. 21, 1989 COMPLETE	MAY 5, 1989 COMPLETE	AUG. 11, 1989 COMPLETE	OCT. 3, 1989 COMPLETE	SEP. 25, 1989 COMPLETE	PENDING	
LLNL	MAR. 3, 1989 COMPLETE	JUN. 19, 1989 COMPLETE	SEP. 7, 1989 COMPLETE	OCT. 24, 1989 COMPLETE	JUN 5-9, 1989 COMPLETE	PENDING	
LANL	MAR. 15, 1989 COMPLETE	JUL. 19, 1989 COMPLETE	SEP. 29, 1989 COMPLETE	NOV. 1, 1989 COMPLETE	MAR 1990		

1) 3 WEEKS AFTER RECEIPT OF NRC COMMENTS

2) BASED ON RECEIPT OF NRC OBSERVATIONS WITHIN 20 WORKING DAYS AFTER AUDIT

04/28/90

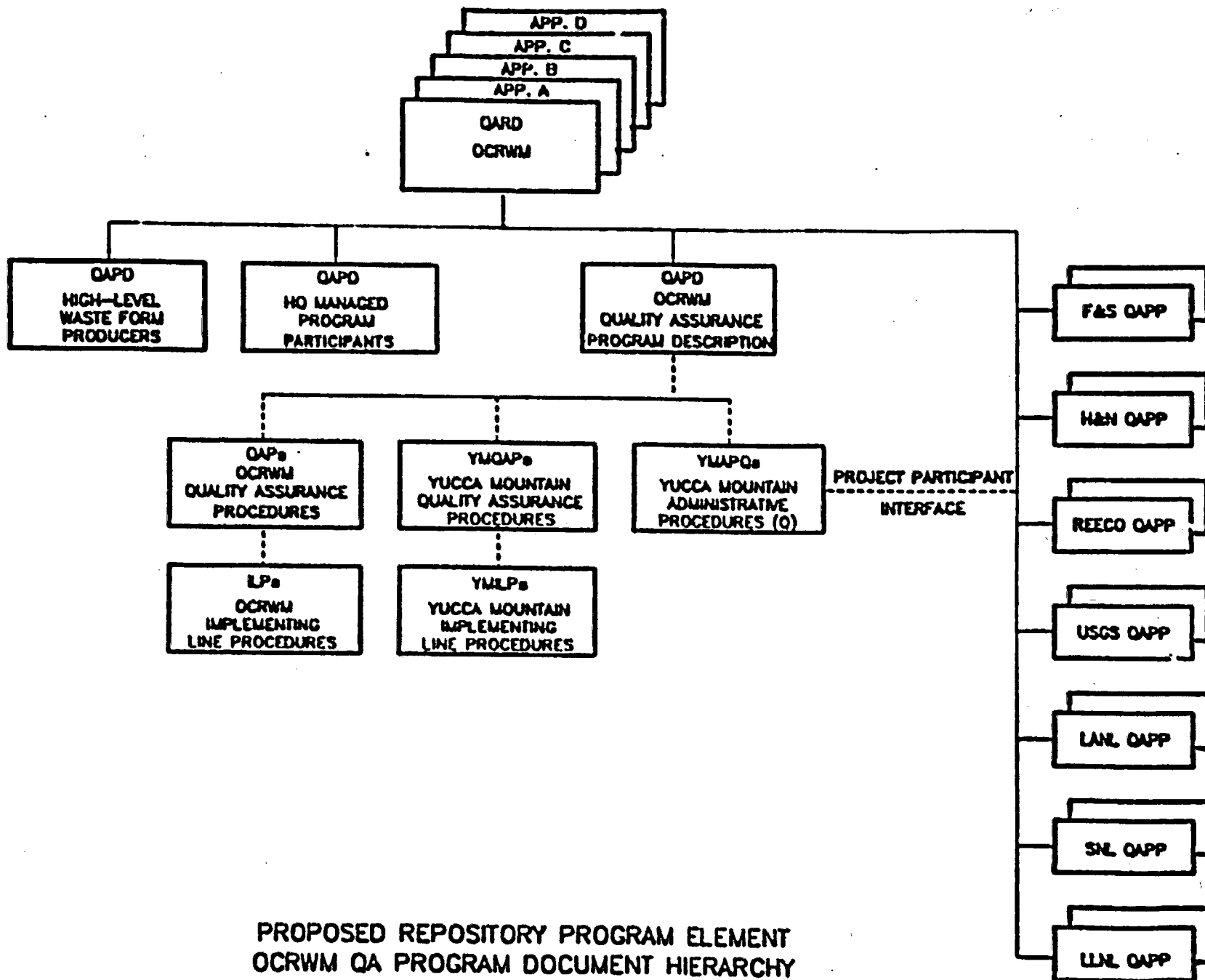
FULL TEXT ASCII SCAN



EXISTING REPOSITORY PROGRAM ELEMENT
OCRWM QA PROGRAM DOCUMENT HIERARCHY

*PROJECT PARTICIPANT INTERFACE

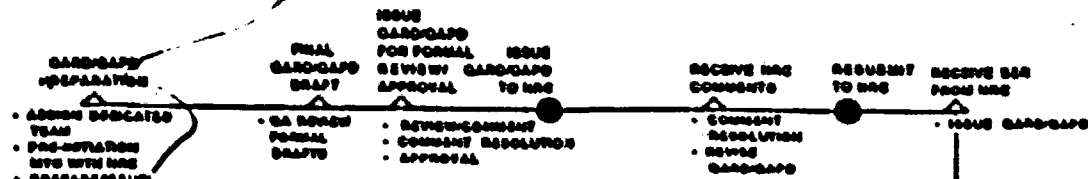
QASHLOR3

**CASHFLOW**

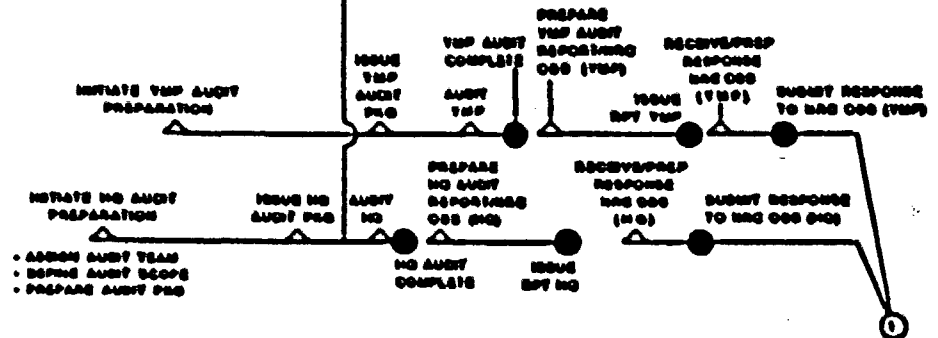
OCRWM QUALITY ASSURANCE PROGRAM DEVELOPMENT AND IMPLEMENTATION

QARD/QAPD REVISION

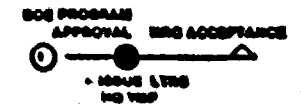
JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY AUGUST SEPTEMBER



QUALIFICATION AUDITS



PROGRAM ACCEPTANCE



JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY AUGUST SEPTEMBER

STATUS OF NRC REVIEWS OF QA PROGRAMS

ORGANIZATION	EFFECTIVENESS OF DOE AUDIT	ADEQUACY OF AUDITED PROGRAM	ACCEPTABILITY FOR STARTING SITE CHARACTER- IZATION
FSN	OK	ACCEPTABLE FOR CONTINUED IMPLEMENTATION	?
H&N	OK	" "	?
LLNL	OK	" "	?
SANDIA	OK	" "	? AUDIT OR SUR- VEILLANCE REQ'D
USGS	MARGINAL	" "	? AUDIT OR SUR- VEILLANCE, INDEPENDENT NRC AUDIT REQ'D
LANL	OK	CORRECTIVE ACTIONS REQUIRED	? AUDIT REQUIRED
REECO	NO TECHNICAL TEAM	ACCEPTABLE FOR CONTINUED IMPLEMENTATION	? AUDIT OR SUR- VEILLANCE REQ'D
YMPO	N/A	N/A	?
OCRWM	N/A	N/A	?

FULL TEXT ASCII SCAN

STATUS OF NRC REVIEWS OF DOE QA PROGRAMS

James E. Kennedy
USNRC
February 15, 1990

ACCEPTANCE CRITERIA

- o HAVING NECESSARY QA PLANS AND PROCEDURES IN PLACE
- o HAVING STAFF TRAINED AND QUALIFIED
- o DEMONSTRATING THE ABILITY TO IMPLEMENT THE QA PROGRAM

CONCLUSION

- o **ALL AUDITED ORGANIZATIONS' PROGRAMS ARE ACCEPTABLE FOR FURTHER IMPLEMENTATION. CORRECTIVE ACTIONS NEEDED AT LANL.**
- o **DOE MUST MAKE FINDINGS ON ACCEPTABILITY OF QA PROGRAMS FOR SITE CHARACTERIZATION TO PROCEED.**

FY-90 AUDIT SCHEDULE

AUDIT #	ORG.	ATL	2/5	2/12	2/19	2/26	3/5	3/12	3/19	3/26	4/2	4/9	4/16	4/23	4/30	5/7	5/14	5/21	5/28	6/4
90-1	LANL	S. CRAWFORD	<input type="checkbox"/>			▽		○		◆	■		●							
90-2	LLNL	F. KRATZINGER						<input type="checkbox"/>					▽	○		◆	■		●	
90-3	USGS	D. KLIMAS												<input type="checkbox"/>				▽		
90-4	SNL	S. CRAWFORD																	<input type="checkbox"/>	
90-5	REECo	F. KRATZINGER																		
90-6	H&N	S. CRAWFORD																		
90-7	FSN	S. DANA																		

FY 90 AUDIT SCHEDULE, REVISION 2

Approval:

James Blaylock

Date:

1/22/90

Page 1 of 2

1. ☐ Scoping Visit

2. ▽ Transmit Notification Letter/Plan

3. ○ Transmit Audit Manuals

4. ◆ Perform Audit

5. ■ Transmit SDRs

6. ● Transmit Audit Report

FULL TEXT ASCII CONT.

FY-90 AUDIT SCHEDULE

AUDIT #	ORG.	ATL	6/11	6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	9/24	10/1	
90-1	LANL	S. CRAWFORD																		
90-2	LLNL	F. KRATZINGER																		
90-3	USGS	D. KLIMAS	○		◆	◆	■		●											
90-4	SNL	S. CRAWFORD				▽		○		◆	■		●							
90-5	REECo	F. KRATZINGER			□			▽		○		◆	■		●					
90-6	H&N	S. CRAWFORD						□				▽		○		◆	■		●	
90-7	FSN	S. DANA									□			▽		○		◆		

FY 90 AUDIT SCHEDULE, REVISION 2

Approv

Date:

01/22/90

Page 2 of 2

1. □ Scoping Visit

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ENCLOSURE

FULL TEXT ISOL SCAN

ORG	EARLY START	EARLY FINISH	1989				1990				1990				1990				1990										
			DEC				JAN				FEB				MAR				APR				MAY						
			4	11	18	25	1	8	15	22	29	5	12	19	26	1	8	15	22	29	5	12	19	26	1	8	15	22	29
FSN	19MAR90	22MAR90	FENIX SCISSON NEVADA												<input type="checkbox"/> SOFTWARE CONTROL														
HGN	20FEB90	23FEB90	HOLMES AND NARVER												<input type="checkbox"/> DEVELOPMENT OF DESIGN PACKAGE NO. 1														
HGN	26MAR90	30MAR90													<input type="checkbox"/> RECORDS CONTROL														
HGN	14MAY90	18MAY90													SOFTWARE CONTROL <input type="checkbox"/>														
LANL	5FEB90	9FEB90	LOS ALAMOS NATIONAL LABORATORY												<input type="checkbox"/> CRITERIA 2, 4, 7, 12, 15, AND 17														
LANL	21MAY90	25MAY90													SOFTWARE/CRITERIA 16, 17, 18 <input type="checkbox"/>														
LLNL	8JAN90A	12JAN90A	LAWRENCE LIVERMORE NATIONAL LABORATORY												<input checked="" type="checkbox"/> STUDY PLANS CRITERIA 1, 4, 7, 12, 17, 18														
LLNL	9APR90	13APR90													SOFTWARE/CRITERIA 4, 7, 12, 16, 18 <input type="checkbox"/>														
REECO	12FEB90	16FEB90	REYNOLDS ELECTRICAL AND ENGINEERING												<input type="checkbox"/> CRITERIA 1, 2, 16, 17, 18														
REECO	19MAR90	23MAR90													<input type="checkbox"/> CALIBRATION														
SNL	8JAN90A	12JAN90A	SANDIA NATIONAL LABORATORIES												<input checked="" type="checkbox"/> SOFTWARE CONTROL														
SNL	29JAN90	1FEB90													<input type="checkbox"/> PROCUREMENT, TRAINING, AUDITS, & SURVEL, CALIB.														
SNL	2APR90	6APR90													CALIB., DOC. CNTRL., INSTR., PROCED. & DWGS <input type="checkbox"/>														
T&MSS	6DEC89A	12DEC89A													<input checked="" type="checkbox"/> SOR PROCESS														
T&MSS	14DEC89A	18DEC89A	PROJECT OFFICE / T&MSS												<input checked="" type="checkbox"/> INSPECTION ACTIVITIES														
T&MSS	15JAN90A	18JAN90													<input checked="" type="checkbox"/> PROCUREMENT														
T&MSS	12FEB90	16FEB90													<input type="checkbox"/> EPA (RADIOLOGICAL MONITORING)														
T&MSS	26FEB90	2MAR90													<input type="checkbox"/> QA AUDITS AND SURVEILLANCES														
T&MSS	16APR90	20APR90													<input checked="" type="checkbox"/> STUDY PLANS														
T&MSS	1MAY90	7MAY90													CRITERIA 1 & 2 <input type="checkbox"/>														
USGS	22JAN90	26JAN90													U. S. GEOLOGICAL SURVEY												<input type="checkbox"/> FLWUP SDR'S/CRIT 1, 4, 5, 7, 12, 17, 18		
USGS	20FEB90	23FEB90	<input type="checkbox"/> SOFTWARE CONTROL																										
USGS	26MAR90	30MAR90	<input type="checkbox"/> STUDY PLANS / TECHNICAL REVIEW																										

Other Qualifications are now controlled by an internal schedule.

ASCII SCAN

Other Qualifications are now controlled by an internal schedule.

DEPARTMENT OF ENERGY
YUCCA MOUNTAIN PROJECT OFFICE
FY-90 REV3 SURVEILLANCE SCH W/ORG

Sheet 1 of 1

Date Date: 17JAN90
Plot Date: 19JAN90

YMP OFFICE SEMIANNUAL SURVEILLANCE SCHEDULE

Date	Approval	Checked	Approved

Project Start: 10DEC89
Project Finish: 25MAY90

TEXT ASCII SCAN

ACTIVITY DESCRIPTION	UNIT (MAY)	START DATE	END DATE	1990											
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SDR PROCESS	6	01/01/90	12/31/90												
INSPECTION ACTIVITIES	5	01/01/90	12/31/90												
STUDY PLANS CRITERIA 1, 4, 5, 7, 12, 17, 18	5	01/01/90	12/31/90												
SOFTWARE CONTROL	5	01/01/90	12/31/90												
PROCUREMENT	5	01/01/90	12/31/90												
FIELD SDR'S/CRIT 1, 4, 5, 7, 12, 17, 18	5	02/01/90	02/01/90												
PROCUREMENT, TRAINING, AUDITS, & SURVEIL, CALIB.	4	02/01/90	11/30/90												
CRITERIA 2, 3, 7, 12, 15, AND 17	5	02/01/90	02/01/90												
EPA (HISTORICAL MONITORING)	5	02/01/90	10/31/90												
CRITERIA 1, 2, 16, 17, 18	5	02/01/90	10/31/90												
DEVELOPMENT OF DESIGN PACKAGE INC.	4	02/01/90	02/01/90												
SOFTWARE CONTROL	4	02/01/90	02/01/90												
QA AUDITS AND SURVEILLANCES	5	02/01/90	02/01/90												
SOFTWARE CONTROL	4	02/01/90	02/01/90												
CALIBRATION	5	02/01/90	02/01/90												
RECORDS CONTROL	5	02/01/90	02/01/90												
STUDY PLANS / TECHNICAL REVIEW	5	02/01/90	02/01/90												
CALIB, DOC, CNTRL, INSTN, PHOCED & IMGS	5	02/01/90	02/01/90												
SOFTWARE/CRITERIA 4, 7, 12, 16, 18	5	02/01/90	02/01/90												
STUDY PLANS	5	02/01/90	02/01/90												
CRITERIA 1 & 2	5	01/01/90	01/01/90												
SOFTWARE CONTROL	5	01/01/90	01/01/90												
SOFTWARE/CRITERIA 16, 17, 18	5	02/01/90	02/01/90												

for qualifications are now controlled by an internal schedule.

See Remarks Section
and continue
on back
of this page

Project Start : 01/01/90
Project Finish : 02/01/90

DEPARTMENT OF ENERGY
YUKON RIVER PROJECT OFFICE
YUKON RIVER SURVEILLANCE AND SCIENCE

Sheet 1 of 1

Date: 01/01/90
File: 01/01/90

YUKON RIVER SURVEILLANCE SCHEDULE			
Date	Activity	Duration	Remarks

YUKON RIVER SURVEILLANCE SCHEDULE

FUTURE

- ° MEETINGS BETWEEN NRC, DOE, AND STATE OF NEVADA, ETC.,
- ° WORKSHOP - SPRING 1990 IN DENVER

FULL TEXT ASCII SCAN

QUALITY ASSURANCE - REPOSITORY PROGRAM

James T. Conway
February 15, 1990

PROBLEM

- ° IMPLEMENTATION OF QA REQUIREMENTS DURING SITE CHARACTERIZATION IS COUNTERPRODUCTIVE TO THE REPOSITORY PROGRAM
 - ° "MY VIEW IS THAT THERE MAY WELL HAVE BEEN AN OVEREMPHASIS" RESPONSE TO THE FOLLOWING "IN YOUR VIEW HAS NRC OVEREMPHASIZED QA ASPECTS?"
[DR. DEERE'S INTERVIEW WITH RADIOACTIVE EXCHANGE - DECEMBER 1989]
 - ° "...DOE APPEARS TO HAVE DEVELOPED A QUALITY ASSURANCE PROGRAM THAT HAS BECOME A MANAGEMENT OBSTACLE RATHER THAN A MANAGEMENT TOOL."
[DR. SEAR'S STATEMENT BEFORE NWTRB - DECEMBER 1989]
 - ° QA CONSUMED 25 - 40% OF THE LLNL RESOURCES LAST YEAR.
[NWTRB MEETING AT LLNL - JANUARY 1990]
 - ° QA REQUIREMENTS ARE USING UP SIGNIFICANT AMOUNTS OF TECHNICAL AND MANAGEMENT PERSONNEL TIME. AS AN EXAMPLE, REVIEW AND APPROVAL OF ONE STUDY PLAN REQUIRES ABOUT 25 SIGNATURES.
[NWTRB MEETING IN DENVER - FEBRUARY 1990]

BACKGROUND

- ° DECEMBER 1989 NRC/DOE QA MEETING
- ° MANAGEMENT MEETING WITH DOE - JANUARY 1990

WORKSHOP

- ° JOINTLY SPONSORED BY NRC/DOE
- ° LETTERS SENT TO DOE CONTRACTORS
- ° POTENTIAL ATTENDEES - SAIC, USGS, LANL, LLNL, SNL, H&N, F&SN, REECe, EEI/UWASTE, NATIONAL RESEARCH COUNCIL, ACNW, CNWRA, STATE OF NEVADA, UNITS OF LOCAL GOVERNMENT, NWTRB AND GAO.
- ° LETTERS SENT TO EACH ORGANIZATION
- ° PROCEDURES/INSTRUCTIONS
- ° BRIEF PRESENTATIONS
- ° GROUP MEETINGS
- ° QUESTIONNAIRE/ANALYSIS SHEET
- ° FINAL REPORT
- ° MANAGEMENT MEETINGS BETWEEN NRC, DOE AND AFFECTED CONTRACTOR PERSONNEL

FEB 15 1990

Attachment (7)

STATUS OF DOE QA OPEN ITEMS

ITEM	DESCRIPTION	STATUS	RECOMMENDATION FOR CLOSURE/REMARKS
1-90 (i) QA-F-1 (ii) QA-F-2 (iii) QA-F-3	DOE Waste Glass QA Program	Open	9/9/89 QA Meeting - DOE indicated that QA requirements for waste form production would be incorporated into Rev. 2 of the QAR document. NRC comments on OGR B-14 would be addressed in the new revision, and OGR B-14 would be superseded. DOE indicated at the 12/13/89 QA meeting that they will transmit Defense Waste QA Plans as they become available. DOE will be developing a draft position on OCRWM/NRC overview/verification activities. Development of Memorandum of Understanding (MOU) among DOE-RW, NE, and DP is in question, as the idea of an MOU has not yet been settled among the 3 DOE offices.
2-90 NRC Items 9 and 11	ESF Q-List and QA Measures	Open	DOE should meet with NRC to discuss and resolve concerns related to Q-List for the ESF and ESF conceptual design.
3-90 NRC Item 7	NNWSI Core Handling Procedures	Open	DOE submitted the Core Handling Procedures to the NRC staff in a 8/11/89 transmittal (Gertz to Stein). The issues raised in the YMP QA Surveillance Report (YMP-SR-89-134) will need to be resolved before this item can be closed. NRC will determine acceptability of implementation and adequacy of procedures in a forthcoming audit of the Sample Management Facility.

FULL TEXT ASCII SEARCH

FEB 15 1990

STATUS OF DOE QA OPEN ITEMS

ITEM	DESCRIPTION	STATUS	RECOMMENDATION FOR CLOSURE/REMARKS
4-90 QA-A-1 QA-B-1d (1) QA-G-3 QA-G-4 QA-G-5	Qualified QA Program before start of new site characterization activities	Open	DOE has made a commitment to having a qualified QA Program before the start of new site characterization activities. However, this item remains open up until the NRC staff accepts the DOE QA Program as qualified for the start of new site characterization activities.
5-90 NRC Item 1 from Enclosure 6 of July 7, 1988 minutes	Definitions for Conceptual, Title I, Title II, and Title III	Closed	At the 12/13/89 QA meeting, DOE provided NRC with DOE Order 4700.1, "Project Management System". This DOE Order in addition to the information explained for design phases in SCP Section 8.3.2.1, defines Conceptual, Title I, and Title II design phases. Title III was used on BWIP and is considered not applicable to YMP.
6-90 NRC Item 13	Access to Project Participants Personnel Qualification files for NRC-DOE	Open	DOE is working with General Counsel and Personnel Managers to initiate mutually acceptable system.
7-90 QA-E-1	Qualification of Existing Data	Open	DOE has provided the NRC with a procedure for qualifying existing data. This procedure is being reviewed by the staff for consistency with the NUREG-1298 on Qualification of Existing Data.
8-90	SCA comments	Open	DOE should provide a response to the July 31 1989 NRC SCA QA comments on the DOE SCP.

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FEB 15 1990

STATUS OF DOE QA OPEN ITEMS

ITEM	DESCRIPTION	STATUS	RECOMMENDATION FOR CLOSURE/REMARKS
9-90	DOE response (Stein to Youngblood dated 12/28/88) to 7 NRC concerns for DOE Audit 88-01 of Pacific Northwest Laboratory - Material Characterization Center	Open	NRC letter (Linehan to Stein dated 6/2/89) lists open items DOE needs to respond to.
10-90 QA-G-1; a and d	Response to NRC Observation of DOE QA Audits		DOE should respond within 30 days after the NRC Observation Audit Report transmittal. These DOE responses are to be reviewed and considered by NRC staff in accepting DOE QA Program. DOE is to respond for the observation reports from the following Yucca Mountain Project Office Audits:
10a.	Holmes & Narver Audit S89-1, 11/1/88-11/4/88	Open	3 observations in NRC Observation Audit Report (Linehan to Stein dated 1/23/89).
10b.	Holmes & Narver Audit 89-2, 4/24/89-4/28/89	Open	7 observations in NRC Observation Audit Report (Linehan to Stein dated 7/31/89).
10c.	Sandia National Laboratory Audit 89-3, 9/11/89-9/15/89	Open	3 NRC staff findings from the 7/88 audit not considered in 89-3 audit (NRC Observation Report, Linehan to Stein dated 11/8/89).

FULL TEXT ASCII SCAN

YUCCA MOUNTAIN PROJECT OFFICE RESPONSE TO NRC STAFF OBSERVATIONS CONTAINED IN
NRC OBSERVATION REPORT FOR QA AUDIT NO. 89-2

Observation (a):

Consideration should be given to revising the control in the 88-9 QA Plan which allows design verification to take place just prior to relying on a component, system or structure to perform its function. (See Section 4.4) (Level 4). DOE should provide a formal response to this observation.

Response:

NWSSI/88-9, Rev. 2 (88-9 QA Plan) incorporates the requirements of NQA-1, 1986, that the NRC Standard Review Plan, Rev. 2, March 1989, endorses. The requirements for design verification currently in the 88-9 QA Plan are a reflection of NQA-1, 1986. As NQA-1, 1986, is recognized as an acceptable national consensus standard by the NRC, no change is contemplated or planned. We believe that this requirement does not represent a risk to public safety because design verification is required prior to relying on the item to perform its intended function.

NRC Observation (a): This response implies that design verification can be accomplished at the "last moment". This is not the overall intent of the NQA-1 standard or the 88-9 QA Plan. In addition to requiring design verification to be performed prior to relying on the item to perform its intended function, NQA-1 Supplement 3S-1, Para. 4 and 88-9 Section III, Para. 2.4.1 require design verification to be performed in a timely manner. This does not mean design verification should be performed at the "11th hour" as was the case with Diablo Canyon where the piping design was verified to be designed in reverse of what it should have been.

Observation (b):

YMPO and H&N should continue to take the necessary precautions to preclude engaging in Title II activities, involving software, without an approved software program. (See Section 4.4) (Level 4). DOE should provide a formal response to this observation.

Response:

The Project Office is working with H&N to develop an adequate Software Quality Assurance Program. The implementation of a Software Quality Assurance Plan will be addressed in future audits. QA Level I and II activities that require software are precluded pending an approved SQAP.

NRC Observation (b): The issue of DOE engaging in QA Level I and II activities without an approved software QA program is inherent of the open item of DOE having a qualified QA program before starting new site characterization activities.

Observation (g):

The NRC staff encourages YPO and HAN to take the necessary action to assure proper interface and coordination between all program participants, especially the interface with NTSO. (See Section 4.4) (Level 4). DOE should provide a formal response to this observation.

Response:

The Project Office agrees with the comment. YPO Administrative Procedure AP-5.19Q, Rev. 0, Interface Control, became effective on June 15, 1989. This administrative procedure addresses the interfaces and coordination between all program participants.

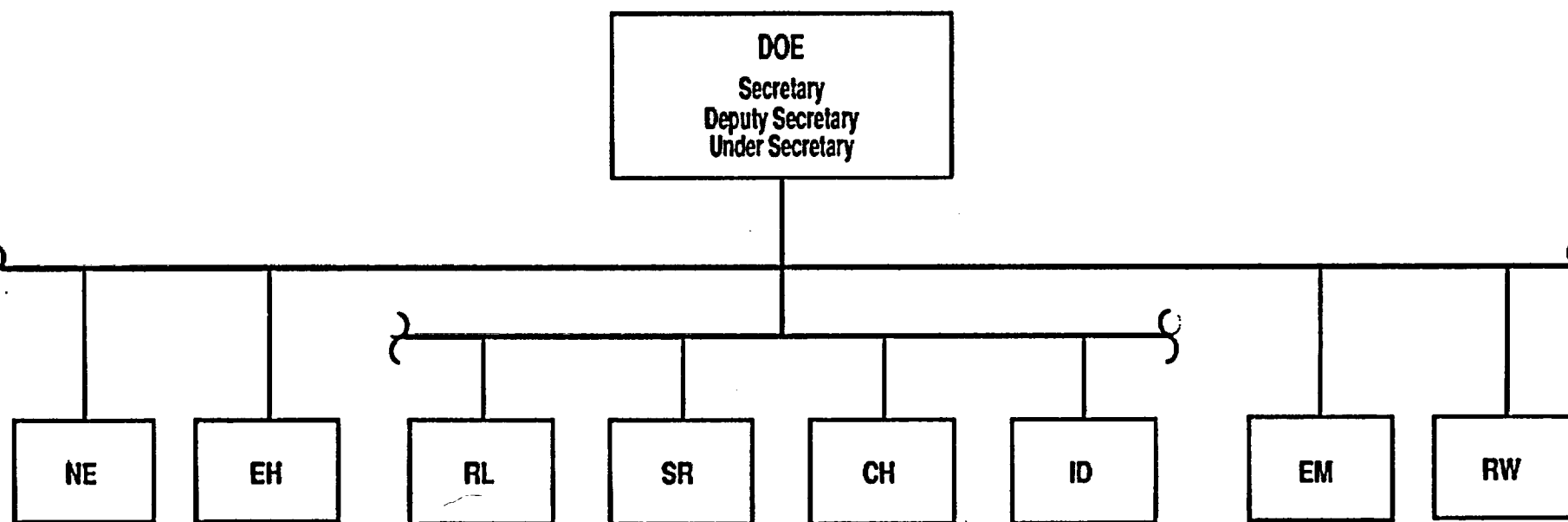
NRC Observation (g): NRC will need to review AP-5.19Q.Rev. 0 for adequacy and satisfactory implementation to assure proper interface and coordination between DOE and all program participants.

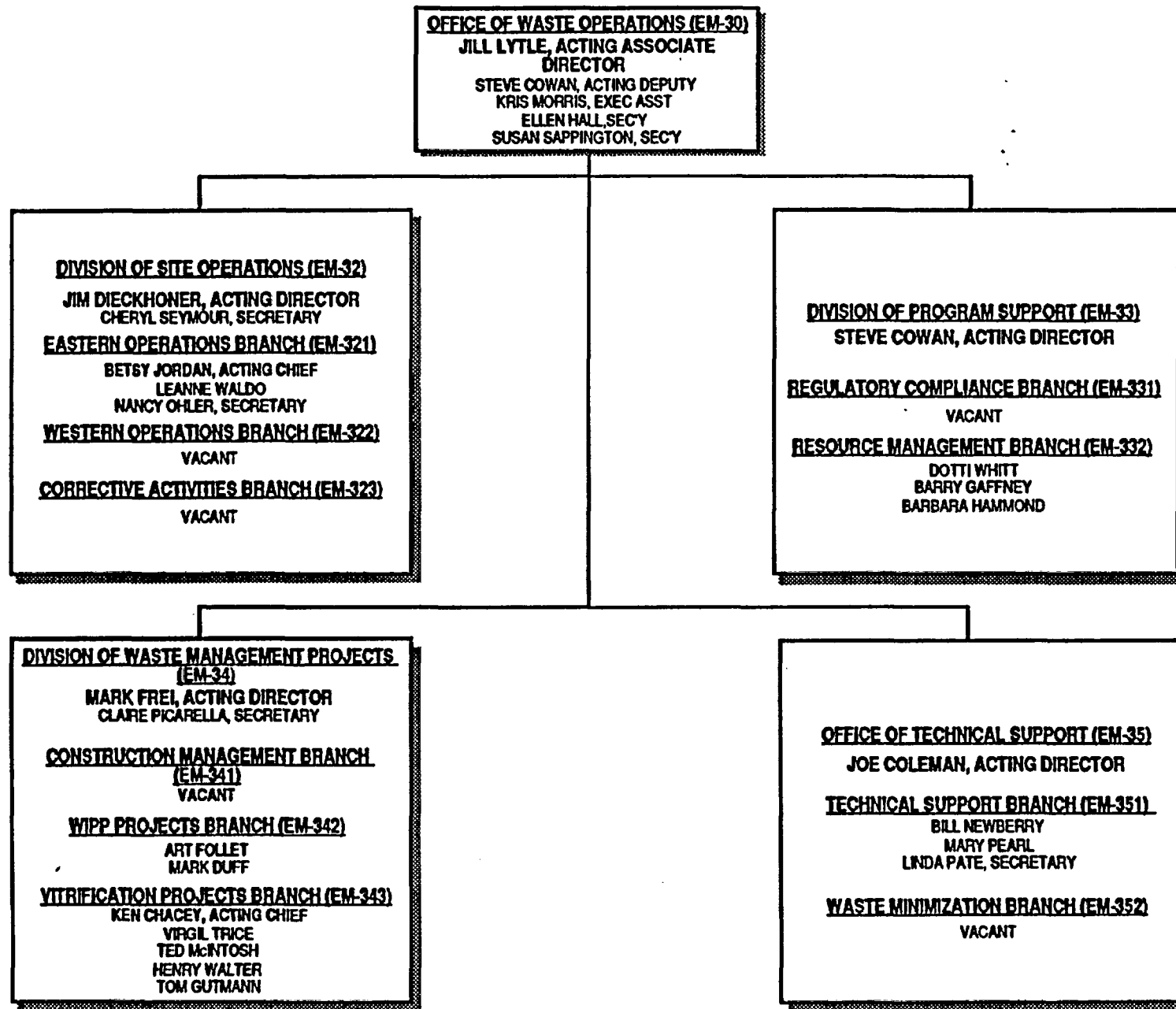
**DOE/EM
VITRIFICATION PROJECTS
HIGH-LEVEL WASTE
QUALITY ASSURANCE PROGRAMS**

OVERVIEW

**QUALITY ASSURANCE PROGRAMS
ORGANIZATION, STRATEGY, AND STATUS**

DOE ORGANIZATION

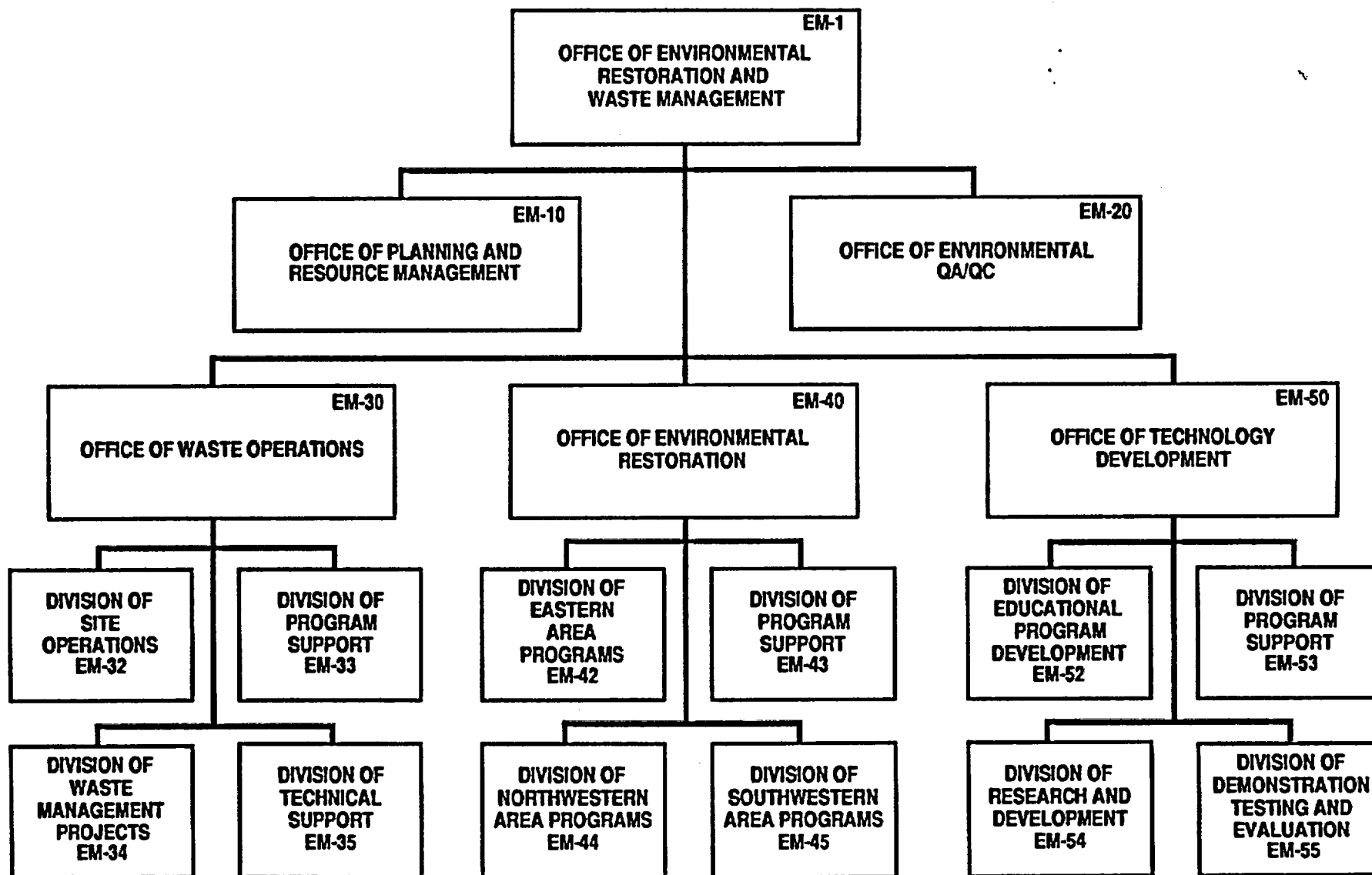




This Diagram Represents Existing Assignments Of Personnel Within The Office Of Waste Operations And Does Not Indicate Specific Work Assignments Or Responsibilities.

2/9/90

OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT



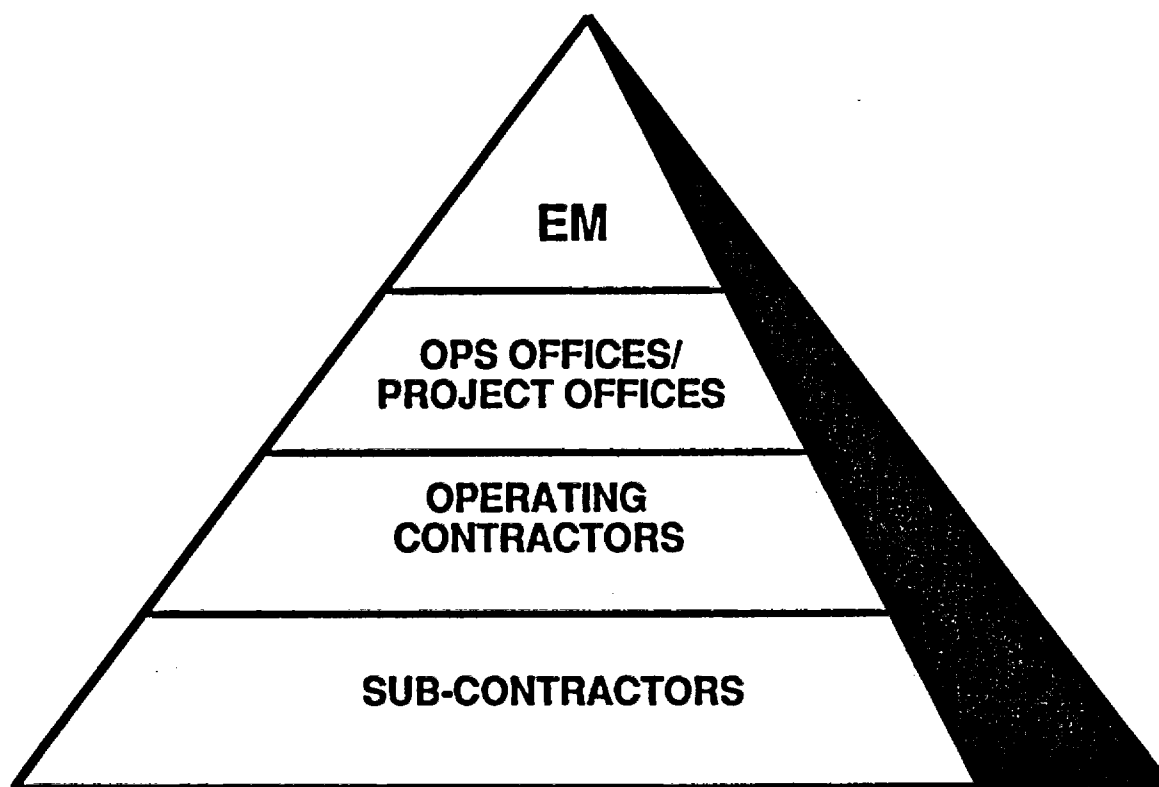
EM MISSION

- 1. PROVIDES POLICY GUIDANCE FOR, AND MANAGES, ASSESSMENT AND CLEANUP OF INACTIVE WASTE SITES AND FACILITIES.**
 - 2. CONTINUES SAFE AND EFFECTIVE WASTE MANAGEMENT OPERATIONS.**
 - 3. DEVELOPES AND IMPLEMENTS AN AGGRESSIVE APPLIED WASTE RESEARCH AND DEVELOPMENT PROGRAM.**
-

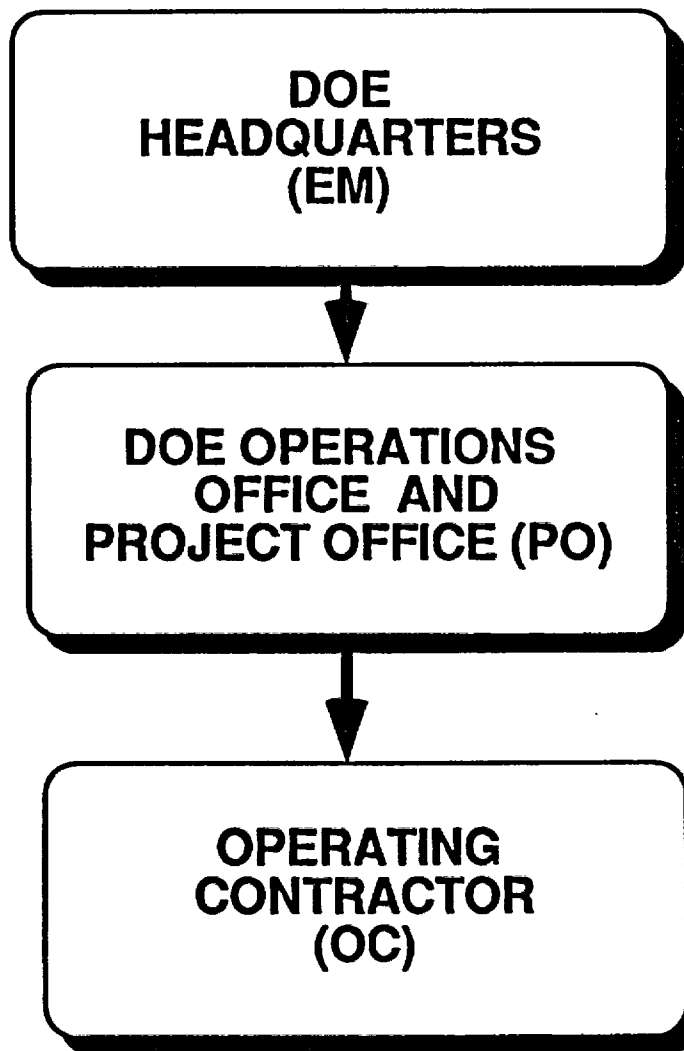
HLW QUALITY ASSURANCE PROGRAM GOALS

- 1. ACHIEVE A HIGH LEVEL OF QUALITY IN ALL HLW ACTIVITIES.**
 - 2. OPERATE IN A WAY THAT COMPLIES WITH FEDERAL REGULATIONS AND REQUIREMENTS.**
 - 3. PROTECT THE ENVIRONMENT, AND THE HEALTH AND SAFETY OF DOE EMPLOYEES AND CONTRACTORS AND THE GENERAL PUBLIC.**
 - 4. OPERATE IN A WAY THAT INSTILLS CONFIDENCE IN OUR ABILITY TO OPERATE SAFELY AND RELIABLY.**
-

QUALITY IS ACHIEVED THROUGH THE ACTIVITIES OF MULTIPLE PARTICIPANTS



**TYPICAL MAJOR PARTICIPANTS IN AN EM
WASTE FORM PRODUCER ORGANIZATION**



DOE

WASTE ACCEPTANCE STRATEGY

- 1. ESTABLISH A PRODUCT ACCEPTANCE SPECIFICATION .**
- 2. ESTABLISH A PLAN FOR MEETING THE SPECIFICATION.**
- 3. QUALIFY THE PRODUCT AND THE PRODUCTION PROCESS.**
- 4. PRODUCE AND CERTIFY EACH PRODUCT UNIT.**

THE WASTE ACCEPTANCE PROCESS FOLLOWS...

WASTE ACCEPTANCE
SPECIFICATION
(WAS)

**OUTLINES ADMINISTRATIVE AND TECHNICAL
REQUIREMENTS THAT EACH CANISTERED WASTE
FORM MUST MEET**

WASTE FORM
COMPLIANCE
PLAN
(WCP)

**DESCRIBES THE PROCESSES, SYSTEMS, AND
TECHNIQUES THAT ENSURE THAT WAS
REQUIREMENTS ARE MET**

WASTE FORM
QUALIFICATION
REPORT
(WQR)

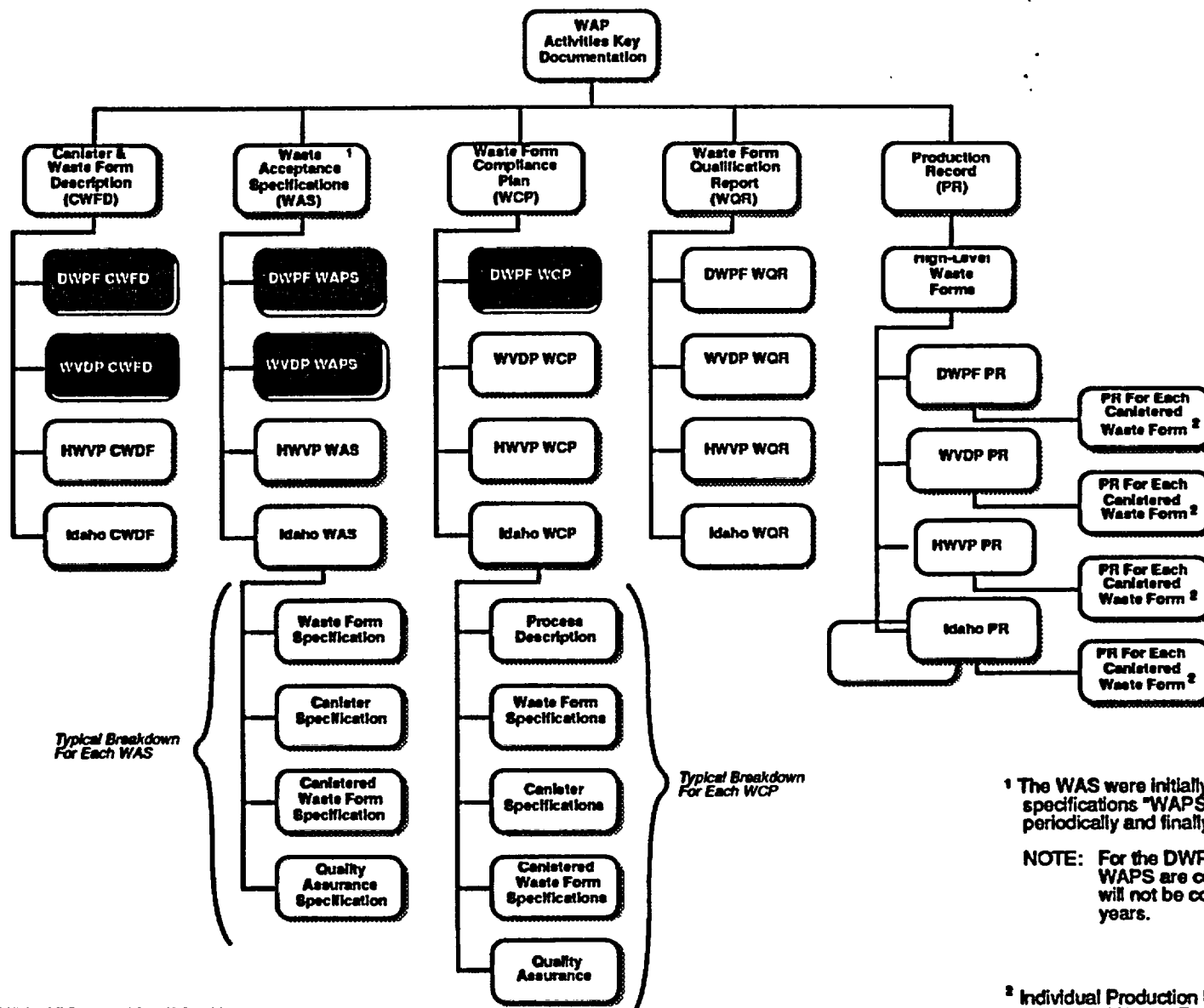
**COMPILES THE INFORMATION AND
DATA FROM WCP IMPLEMENTATION
THAT DEMONSTRATES COMPLIANCE
WITH WAS**

PRODUCTION
RECORDS
(PRs)

**DOCUMENTS PRODUCTION OF EACH
CANISTERED WASTE FORM.**

**WILL ACCOMPANY EACH UNIT WHEN
TURNED OVER TO THE REPOSITORY.**

DOE WASTE ACCEPTANCE PROCESS DOCUMENTS



¹ The WAS were initially issued as preliminary specifications "WAPS". They will be updated periodically and finally issued as WAS.

NOTE: For the DWPF and WVDP, the WAPS are complete but the WAS will not be completed for several years.

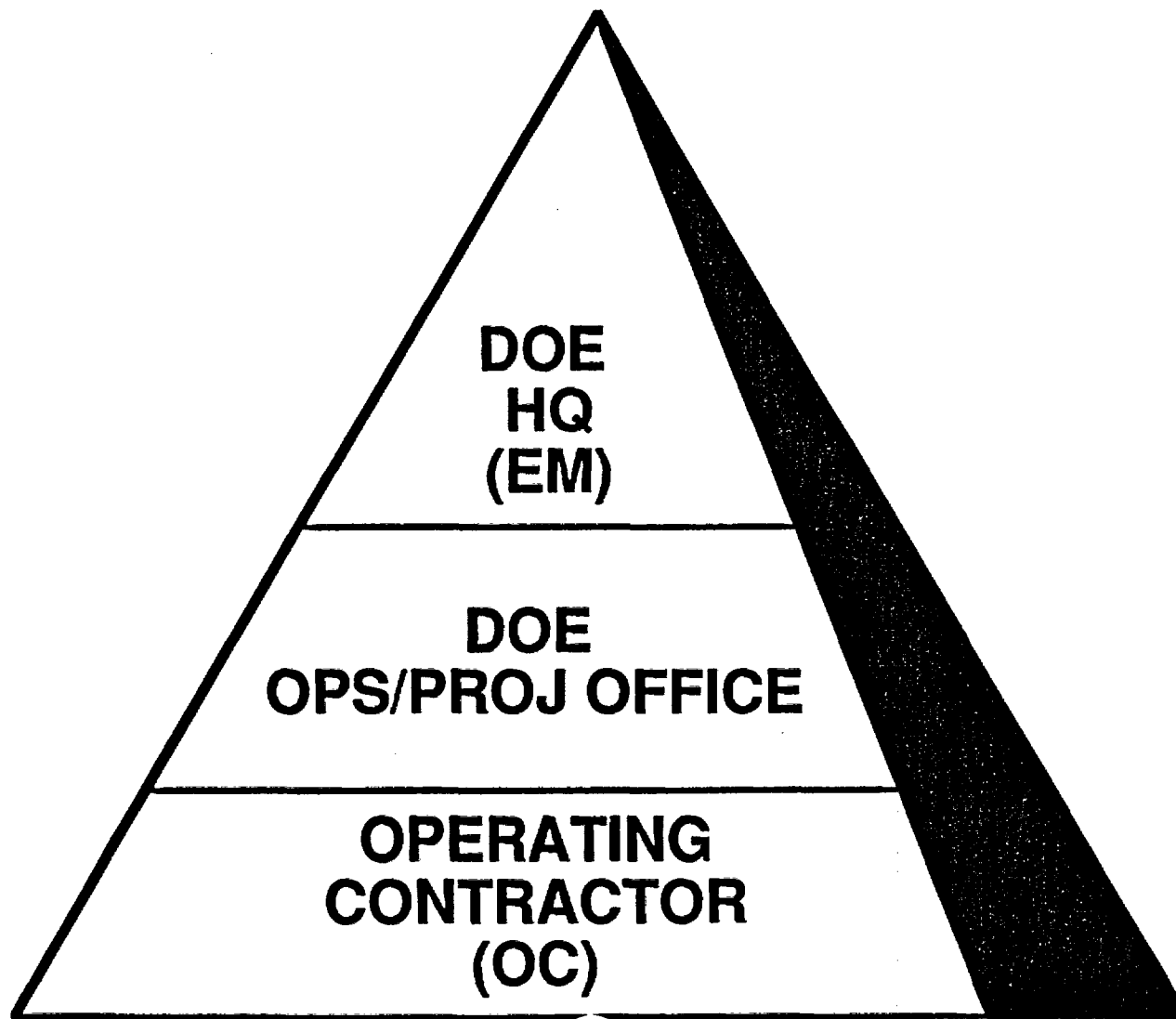
² Individual Production Records for each Canistered Waste Form (each individual canister of waste) is the Basis for Waste Form Certification

..... INDICATES COMPLETION

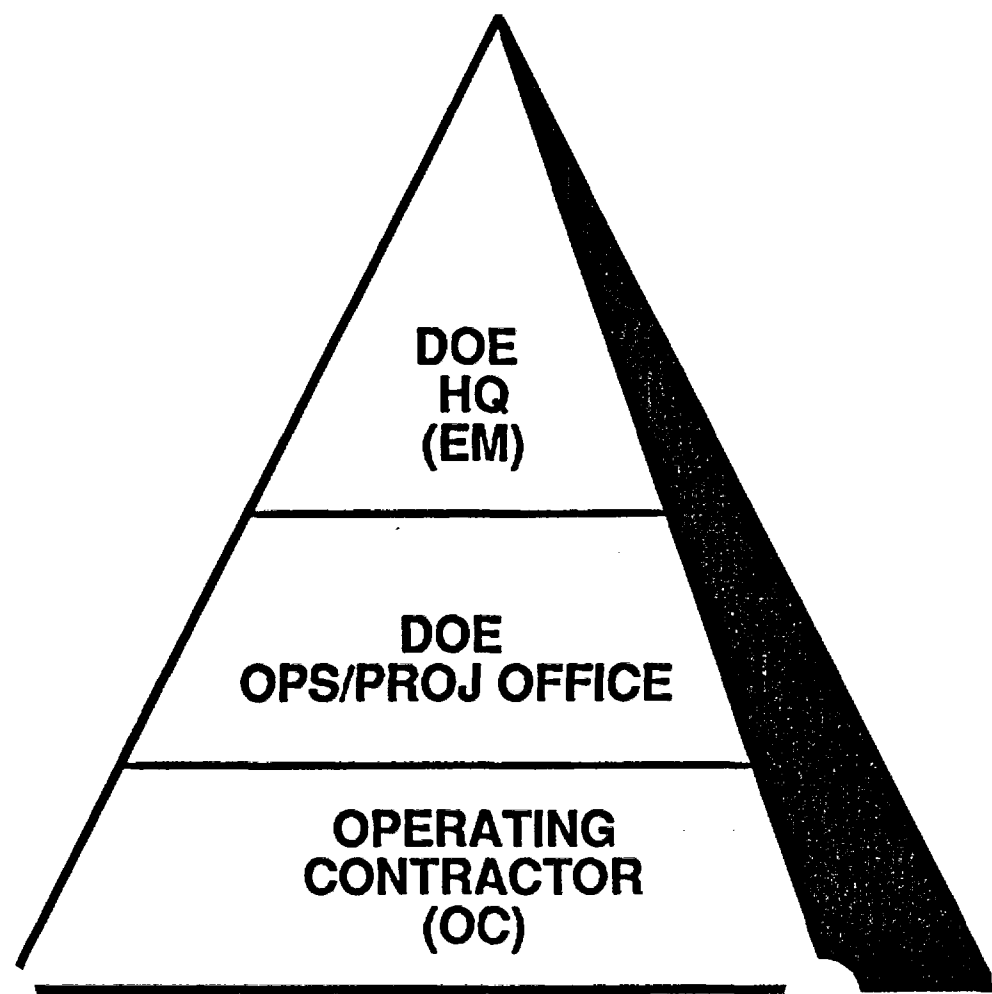
**DOE/EM
VITRIFICATION PROJECT
HIGH-LEVEL WASTE
QUALITY ASSURANCE PROGRAMS**
———— OVERVIEW ————

**COMPOSITE
WASTE FORM PRODUCER
QUALITY ASSURANCE PROGRAM**

COMPOSITE WASTE FORM PRODUCER ORGANIZATION



EACH PARTICIPANT HAS A PART IN ASSURING QUALITY

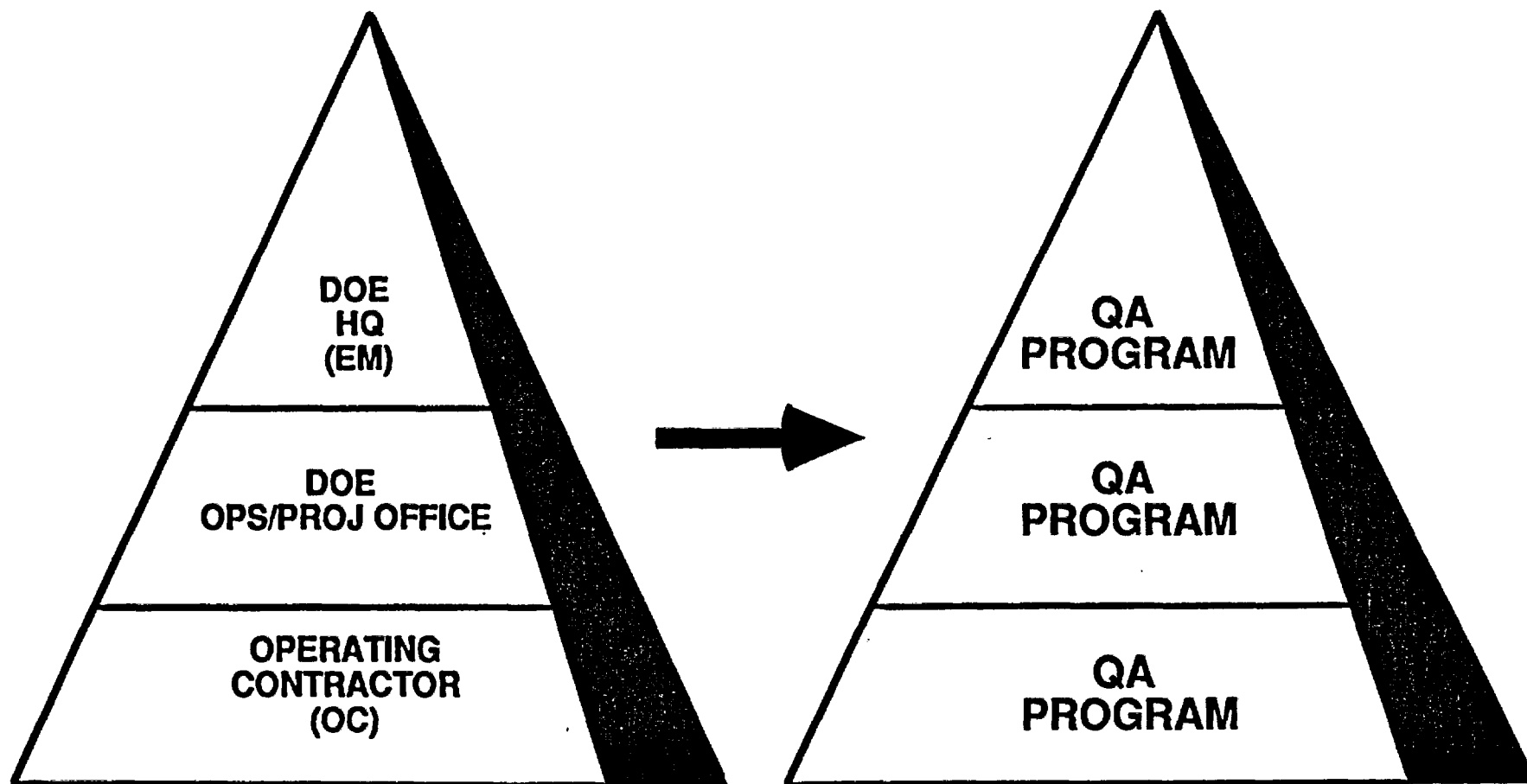


**- Program overview
and control**

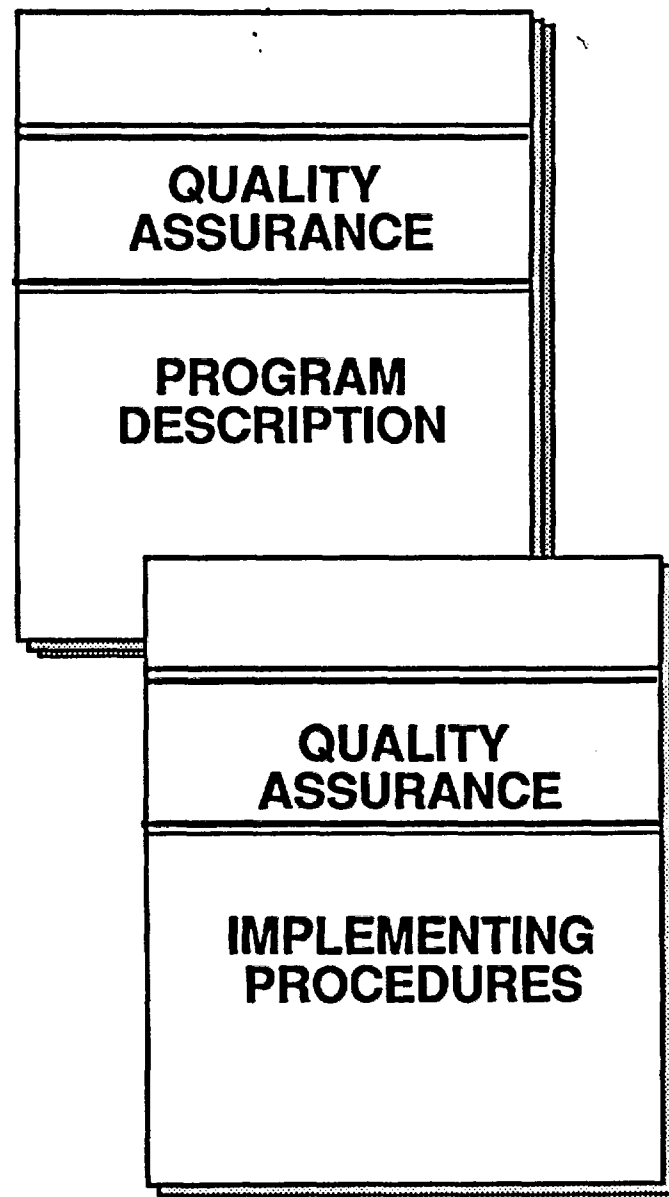
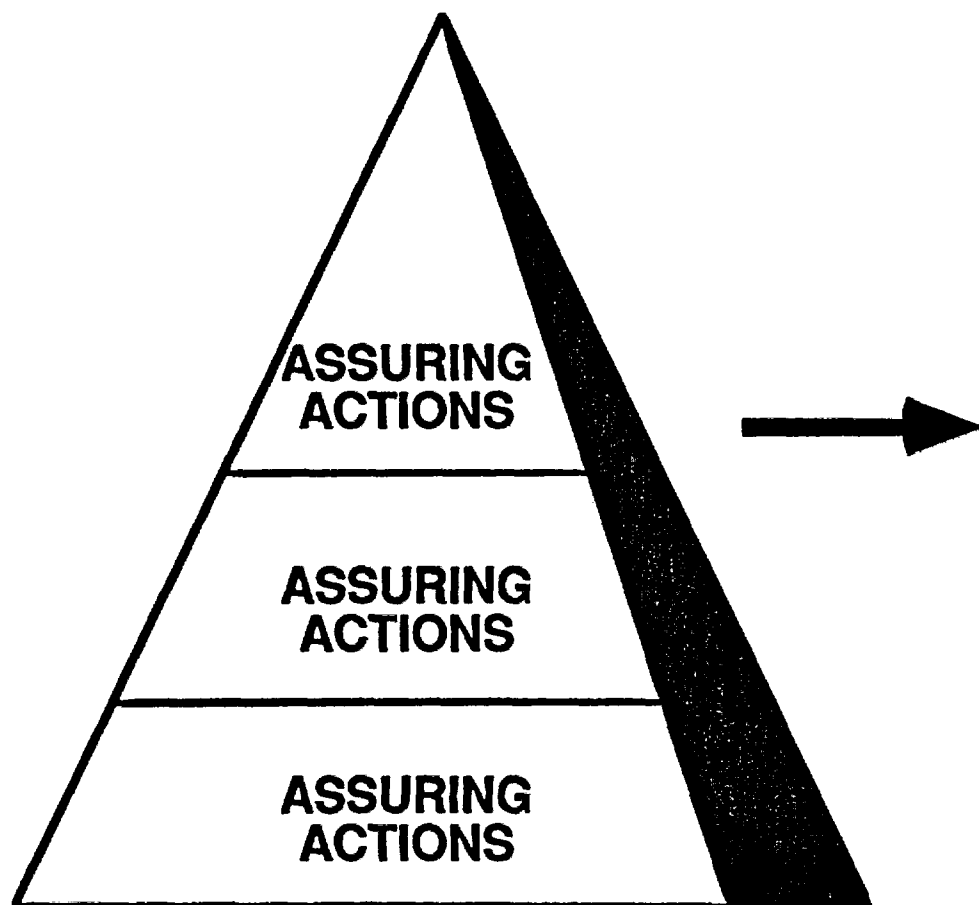
**- Contractor overview
and control**

**- Work control
- Assessment/Evaluation of results
- Quality improvement**

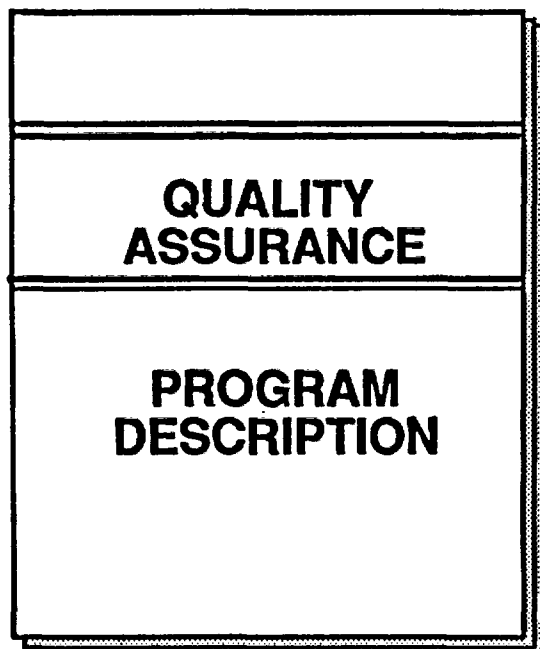
EACH LEVEL ARRANGES ITS ASSURING ACTIONS
INTO A QA PROGRAM



*** EACH LEVEL DESCRIBES ITS QA PROGRAM
IN A QAPD AND IMPLEMENTS IT THROUGH
WORK PROCEDURES**



QUALITY ASSURANCE PROGRAM DESCRIPTION

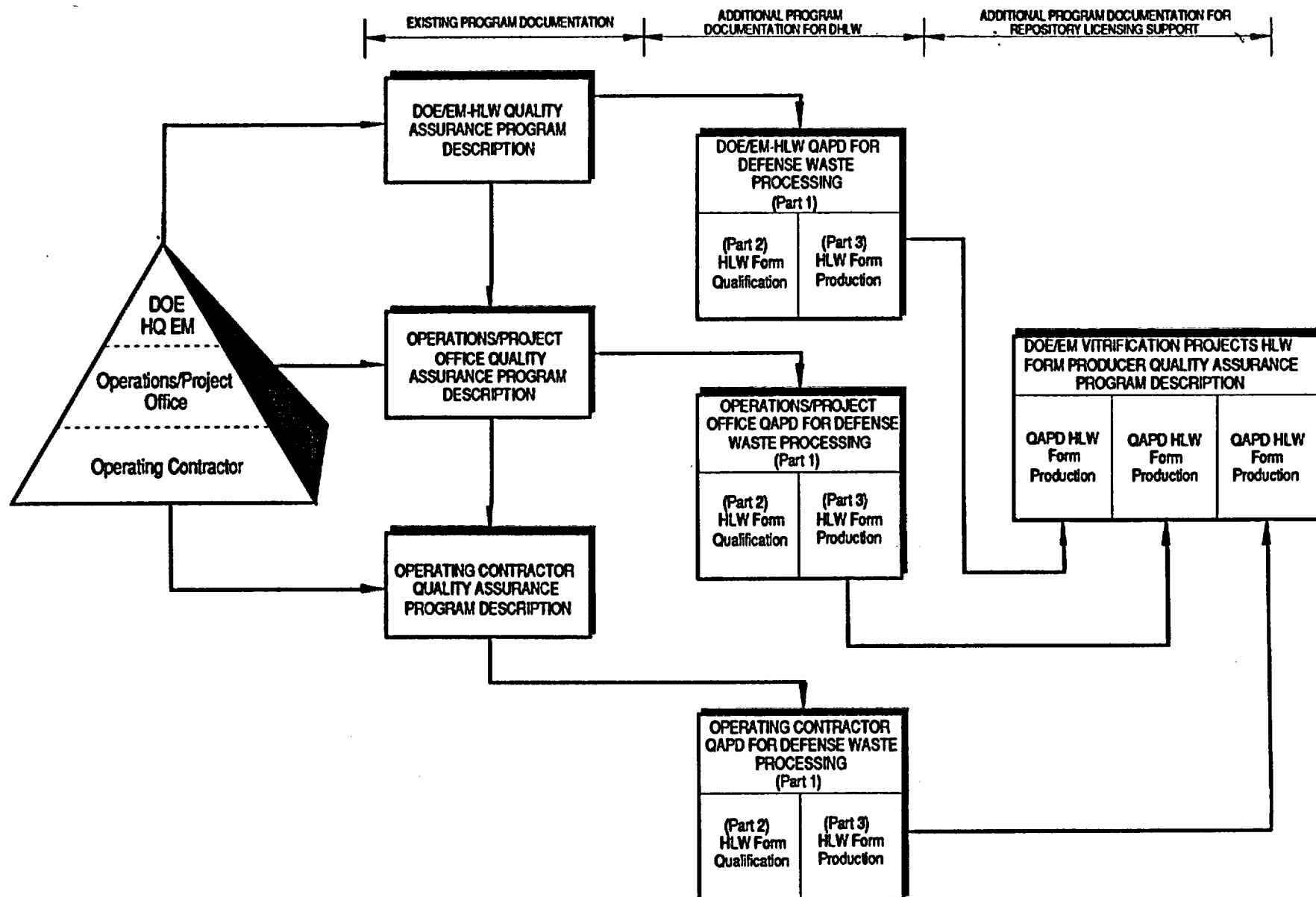


- TOOL TO ESTABLISH AND EXECUTE QA PROGRAM
- ASSISTS OTHER ORGANIZATIONS IN UNDERSTANDING THE PARTICIPANT'S PROGRAM
- CONTAINS:
 1. Description of the scope of work that will be controlled
 2. Description of the Assuring actions that will be applied
 3. Identification of who will perform the Assuring actions
 4. List of procedures through which the Assuring actions will be carried out

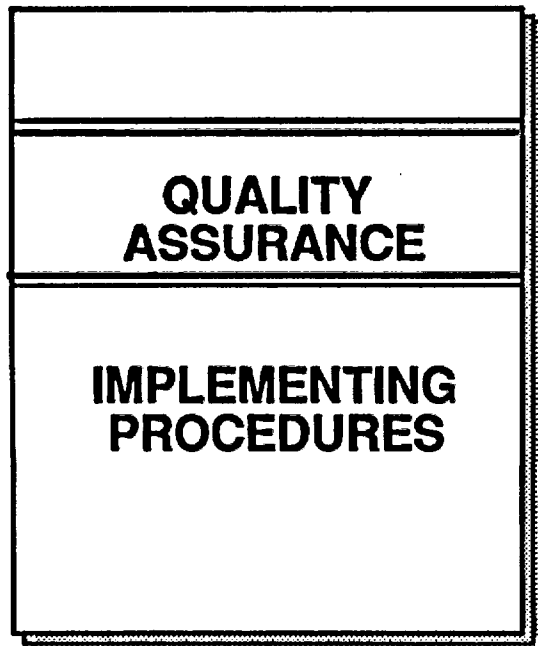
THESE QAPDs HELP:

- **Organize and Manage the Overall Quality Assurance Program**
- **Solidify the Quality Assurance Programs of the Waste Form Producer Organizations**
- **Secure the Acceptance of DOE Organizations**
- **Provide Input to Repository License Application**

Typical Waste Form Producer Quality Assurance Program Documentation



IMPLEMENTING PROCEDURES



- PROVIDE CONSISTENCY AND GUIDANCE TO PROGRAM MANAGERS AND OTHER PERSONNEL

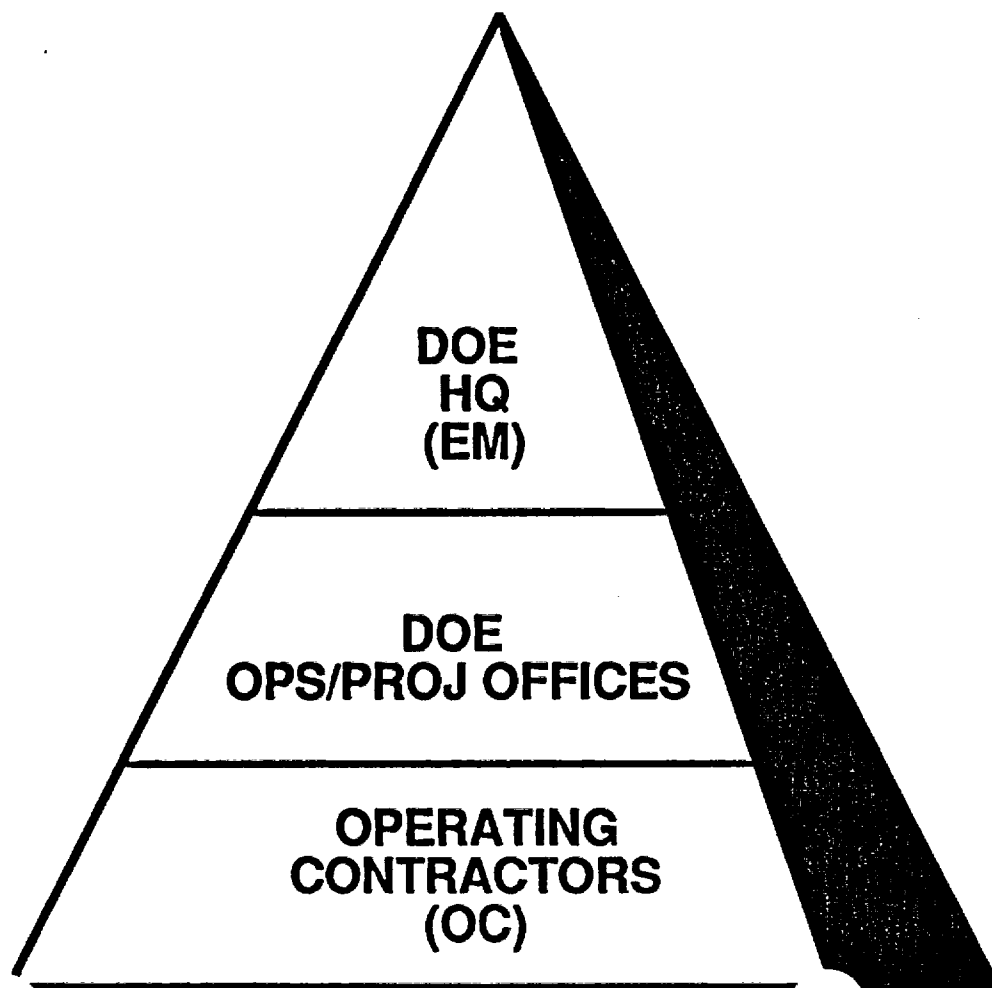
- PROVIDE PROGRAM CONTROL FOR MANAGEMENT

- PERFORM THE FOLLOWING FUNCTIONS:

- 1. Define responsibilities for implementing the Assuring actions identified in the QAPD.**
- 2. Identify the interfaces and relationships between those who perform Assuring actions.**
- 3. Provide instructions for implementing assuring actions.**

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MAJOR WASTE FORM PRODUCER QA PROGRAM DOCUMENT STATUS



FULL TEXT RECOGNITION

STATUS OF QUALITY ASSURANCE PROGRAM- DEFINING AND IMPLEMENTING DOCUMENTATION

QAPD

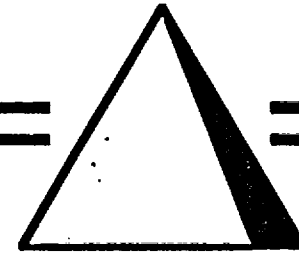
PROCEDURES

• DWPF	Rev. 3 reviewed through DP and RW Revision to meet RW-0214 awaiting issue of rev. 2 of RW-0214.	PMT Standard Practice Procedures in place. All procedures required to meet OGR/B-14 for current work are in place
• WVDP	Reviewed through NE & RW. Initial revision to meet RW-0214 complete. Final review pending formal issue of rev. 2 of RW-0214.	Complete by 3/90
• HWVP	Current QAPD meets OGR/B-14. Revision to meet RW-0214 pending formal issue of rev. 2 of RW-0214.	40 % complete.
• ICPP	Initial draft developed.	Current work (research) being conducted under standard site quality program

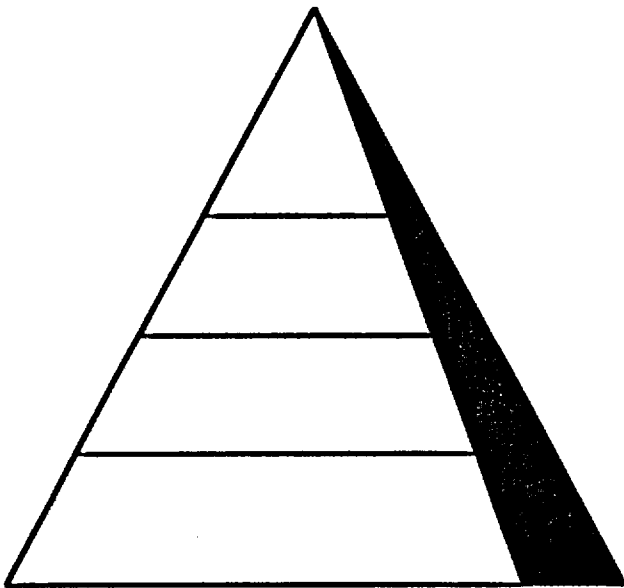
**DOE/EM
VITRIFICATION PROJECTS
HIGH-LEVEL WASTE
QUALITY ASSURANCE PROGRAMS**

OVERVIEW

**QUALIFICATION AND OVERVIEW
OF THE HLW
QUALITY ASSURANCE PROGRAMS**

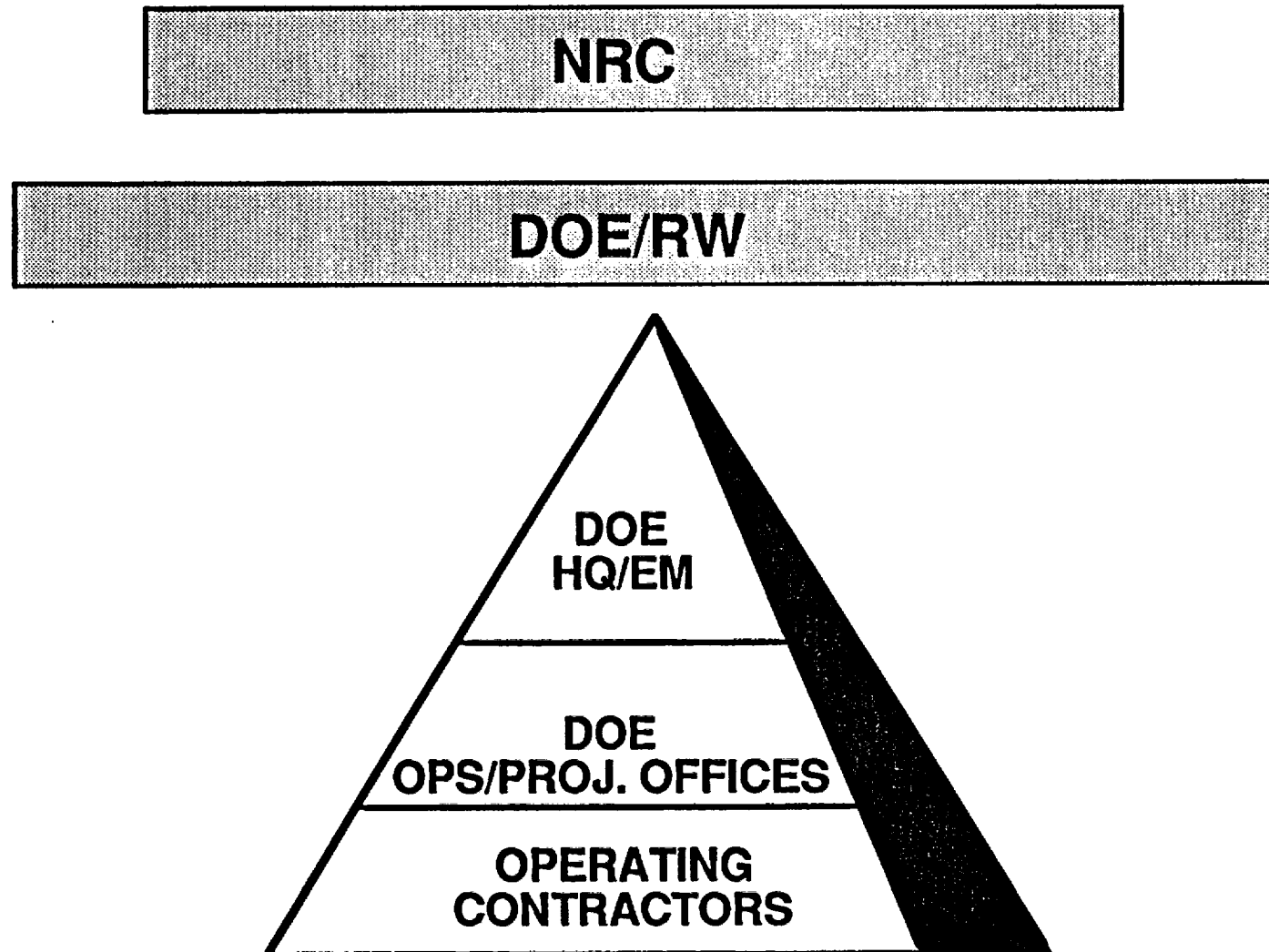


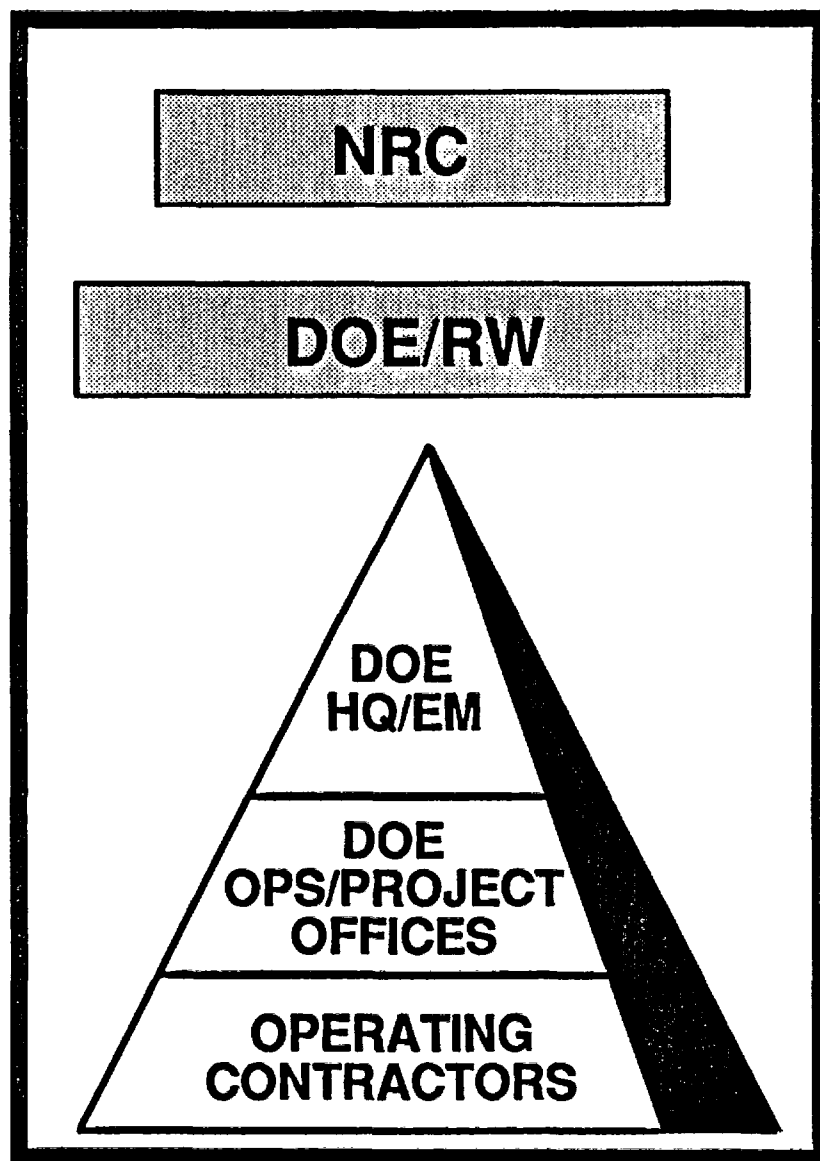
Qualification & Overview



- To be qualified, each participant will:
 1. Develop a QAPD and Implementing procedures.
 2. Secure acceptance from next higher-tier organization.
 3. Prepare to implement and declare ready.
 4. Be surveyed and declared acceptable by the next higher organization and implement.
- Each participant for the next lower tier will:
 1. Review and accept their QAPD and implementing procedures.
 2. Perform an acceptance survey and make a qualification declaration.

TYPICAL OVERVIEW PARTICIPANTS



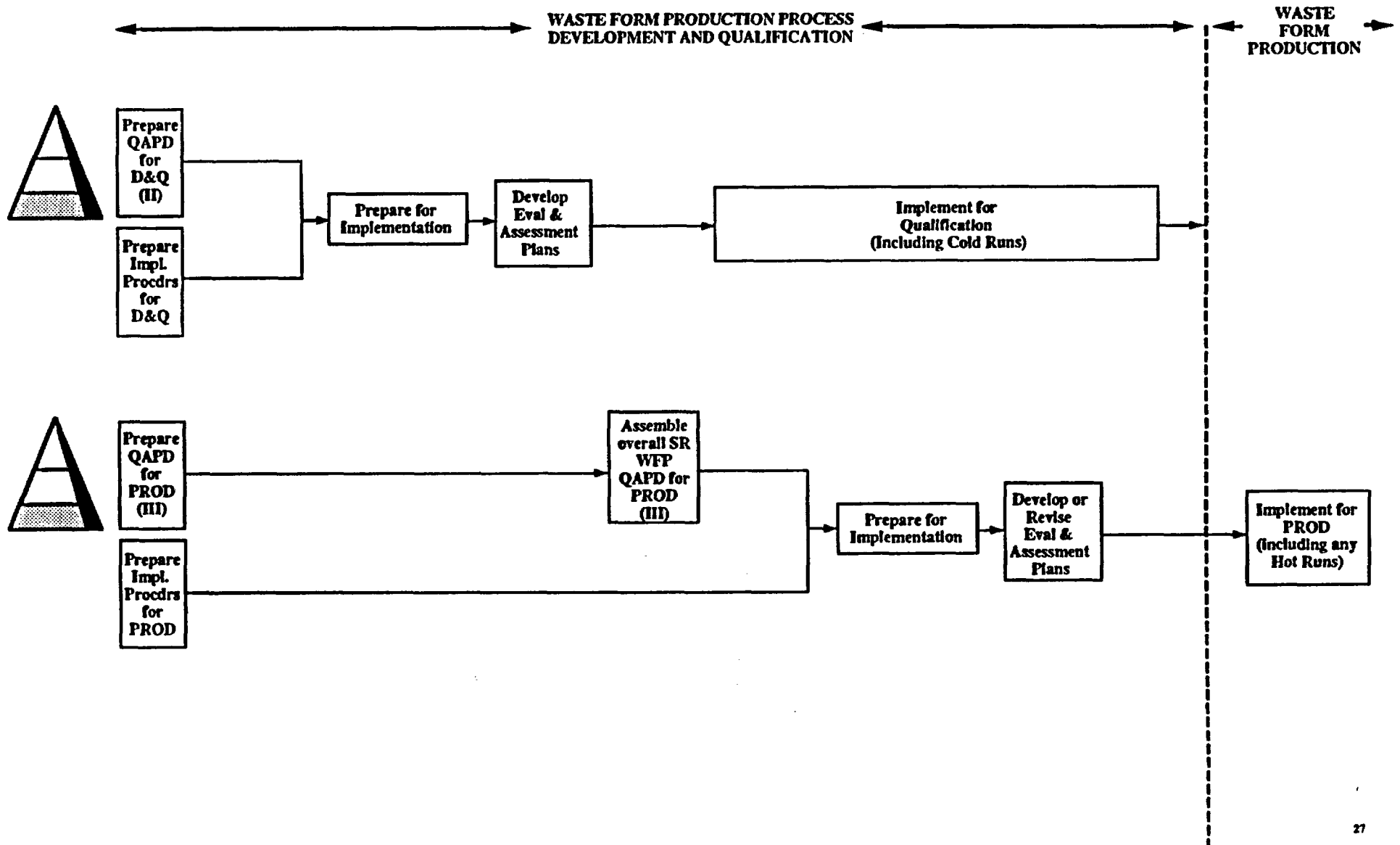


BASIC RESPONSIBILITIES

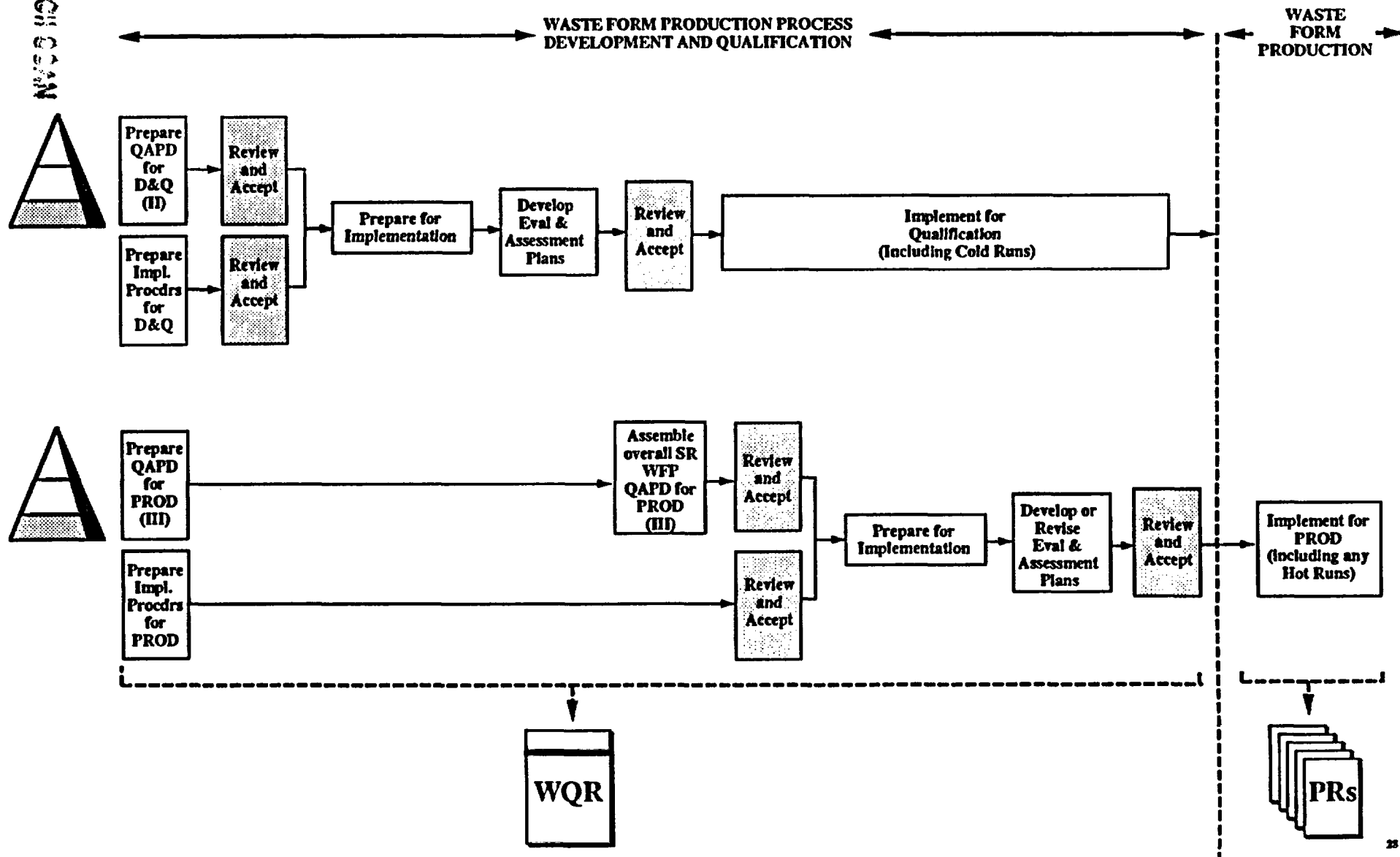
- 1. OVERVIEW OWN PROGRAM**
- 2. OVERVIEW IMPLEMENTATION OF LOWER-TIER PARTICIPANTS' PROGRAMS**
- 3. SHARE OVERVIEW SCHEDULES WITH UPPER-TIER PARTICIPANTS**

FULL TEXT ASCII SCHEM

QA PROGRAM DEVELOPMENT AND IMPLEMENTATION



QA PROGRAM DEVELOPMENT, QUALIFICATION, AND IMPLEMENTATION



QA PROGRAM DEVELOPMENT, QUALIFICATION, IMPLEMENTATION, AND OVERVIEW

