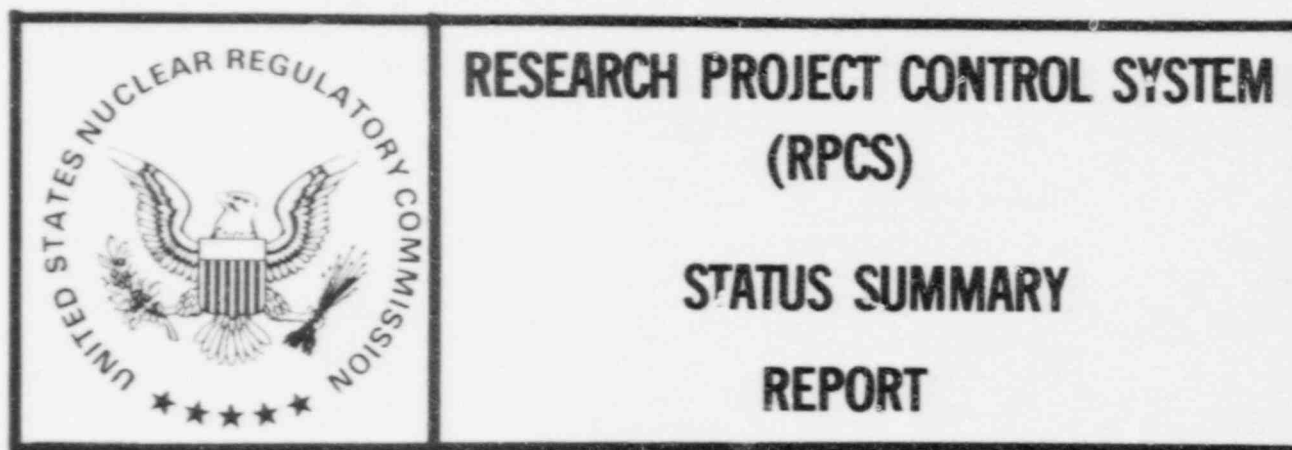


OFFICE OF NUCLEAR REGULATORY RESEARCH



RESEARCH REQUEST LOG

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INTRODUCTION

THE RESEARCH REQUEST LOG LISTS REQUESTS FOR RESEARCH RECEIVED FROM OTHER NRC OFFICES AND PROJECTS INITIATED BY THE OFFICE OF NUCLEAR REGULATORY RESEARCH (RES).

THE LOG PROVIDES USER OFFICES WITH THE STATUS OF THESE REQUESTS FOR RESEARCH. PROJECT MILESTONES AND TASK SCHEDULING IS AVAILABLE IN GREATER DETAIL IN THE RES RESEARCH PROJECT CONTROL SYSTEM (RPCS).^{*} RPCS STATUS REPORTS WILL BE MADE AVAILABLE ON A ROUTINE BASIS AFTER DECEMBER 1, 1980.

RES PLANS TO ISSUE THIS REPORT QUARTERLY. SUGGESTIONS REGARDING USEFULNESS OR IMPROVEMENTS TO THIS LOG SHOULD BE SENT TO:

DR. J. T. LARKINS, CHIEF
PROGRAM COORDINATION BRANCH
OFFICE OF NUCLEAR REGULATORY RESEARCH
MAIL STOP 1130-SS
WASHINGTON, D.C. 20555

^{*}THE RESEARCH PROJECT CONTROL SYSTEM IS FULLY OPERATIONAL FOR THE DIVISIONS OF SAFEGUARDS AND ENVIRONMENTAL RESEARCH, SYSTEMS AND RELIABILITY RESEARCH, AND THE GENERAL REACTOR SAFETY RESEARCH SECTION OF THE DIVISION OF REACTOR SAFETY RESEARCH. BY DECEMBER 1, 1980, THE RPCS WILL PROVIDE PROJECT OBJECTIVE, STATUS AND DETAILED MILESTONE SCHEDULING DATA FOR ALL RES ORGANIZATION UNITS.

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2	I&E 76-1	05/26/76	APPLICATION OF REACTOR SAFETY STUDY TO INSPECTION AND ENFORCEMENT.	SRR	03/08/77	03/00/77	03/15/77
3	I&E 76-2	05/26/76	INSPECTION EFFORT FOR OTHER HUMAN ENDEAVORS	SRR	03/08/77		03/15/77
4	I&E 76-3	05/26/76	PROCESS AND EFFLUENT MONITORING.	SAFER		07/01/76	
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10	I&E 78-1	04/07/78	RESPONSE EFFICIENCY OF MONITORING INSTRUMENTS FOR HIGH ENERGY GAMMAS.	SAFER			
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54	NMSS 79-4	02/09/79	HIGH LEVEL WASTE RESEARCH.	SAFER		09/15/78	04/04/79
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61	NMSS 79-11	12/31/79	RADIONUCLIDES CAUSING GREATEST LONG TERM IMPACTS.	SAFER			
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69	NMSS 80-8	08/08/80	TMI WASTE PROPERTIES	SAFER			
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72	NRR 75-1	07/30/76	REACTOR SAFETY STUDY METHODOLOGY APPLICATIONS PROGRAM.	SRR	02/10/77	04/00/76	
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75	NRR 76-2	03/29/76	CRBRP INHERENT RETENTION CAPABILITY FOR SODIUM AND CORE DEBRIS: A) SODIUM-CONCRETE INTERACTIONS. B) SODIUM INTERACTIONS WITH STEEL-LINED CONCRETE CELLS. C) CORE DEBRIS INTERACTIONS WITH STEEL-LINED CONCRETE CELLS.	RSR	05/17/76 03/01/78	04/00/76	06/22/78
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77	NRR 76-4	04/30/76	ASSESSMENT OF AGRICULTURAL LAND IN RELATION TO POWER PLANT SITING AND COOLING SYSTEM SELECTION.	SAFER	06/08/77	06/01/77	06/20/77
78	NRR 76-5	05/13/76	IMPACTS OF COASTAL AND OFFSHORE NUCLEAR GEN- ERATING STATIONS ON RECREATIONAL AND TOURIST BEHAVIOR AT ADJACENT COASTAL SITES.	SAFER	06/13/77	06/10/76	07/11/77
79	NRR 76-6	05/20/76 05/24/77	FORECASTS OF GENERATING COSTS OF COAL AND NUCLEAR PLANTS.	SAFER	05/31/77	09/01/76	
80	NRR 76-7	05/20/76	EFFECTS OF NUCLEAR POWER PLANT OPERATIONS ON MARINE BORER POPULATIONS.	SAFER	08/05/77	09/01/76	08/23/77
81	NRR 76-8	06/07/76	QUANTIFICATION OF INHERENT SAFETY MARGINS IN SEISMIC DESIGNS.	RSR	05/12/78	12/01/78	11/28/78
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86	NRR 76-13	07/09/76	SCALING LAWS FOR BWR SUPPRESSION POOL TESTS.	RSR	09/01/76	10/00/76	
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88	NRR 76-15	07/21/76	TORNADO GENERATED MISSILE CRITERIA	RSR	05/31/78	07/01/79	12/27/78

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89	NRR 76-16	07/21/76	USE OF REVERSE OSMOSIS FOR PROCESSING RADIO-ACTIVE LIQUID WASTES FROM NUCLEAR POWER REACTORS.	SAFER	07/25/76	08/01/77	08/25/77
90	NRR 76-17	07/28/76	NON-RADIOLOGICAL TRANSPORTATION ACCIDENT EVALUATION FOR SITING OF NUCLEAR POWER PLANTS.	SRR	02/11/77 05/15/78	06/01/78	
91	NRR 76-18	08/11/76	PHASE I - RELIABILITY EVALUATION OF THE COMBUSTION ENGINEERING COMPUTER PROTECTION SYSTEM, COMPARED TO CONVENTIONAL ANALOG COMPUTER PROTECTION SYSTEMS. PHASE II - USE PHASE I RESULTS TO ASSIST IN ESTABLISHING LCO REQUIREMENTS FOR TECHNICAL SPECIFICATIONS.	SRR	02/10/77	10/00/76 01/00/78	
92	NRR 76-19	09/22/76	NOISE ANALYSIS DIAGNOSIS FOR NUCLEAR POWER PLANTS.	RSR	10/21/76	09/00/76	
93	NRR 76-20	10/22/76	CONFIRMATORY RESEARCH OF THE PERFORMANCE OF ACTIVATED CHARCOAL IN NORMAL VENTILATION EXHAUST SYSTEMS.	SAFER	11/28/77	01/15/77	12/14/77
94	NRR 76-21	11/08/76	PWR SYSTEM PERFORMANCE WITH UPPER HEAD INJECTION	RSR	01/17/77	03/12/79	11/28/78
95	NRR 76-22	11/09/76	EVALUATION OF REACTOR EVALUATION STREAMING.	SAFER		02/27/79	11/28/78
96	NRR 76-23	11/22/76	COBRA-IV LOCA ANALYSIS OF PLANTS EQUIPPED WITH UHI.	RSR	01/17/77	BEG FY78	
97	NRR 76-24	12/08/76	SENSITIVITY OF CERTAIN AERIAL PHOTOGRAPHIC TECHNIQUES.	SAFER		09/01/76	12/08/76
98	NRR 77-1	01/14/77 12/06/77	FORECASTING ELECTRICITY DEMAND BY STATE IN THE U.S. ON AN ANNUAL BASIS.	SAFER	06/09/77	10/01/78	06/23/77
99	NRR 77-2	02/09/77	EXTENSION OF THE PWR FLECHT PROGRAM.	RSR	04/28/78	07/01/77	07/06/79
100	NRR 77-3	05/31/77	GENERIC STUDY OF THE IMPACT OF CONSERVATION, RATE STRUCTURE ALTERNATIVES, LOAD MANAGEMENT ALTERNATIVES, AND COGENERATION ON THE NEED FOR POWER.	SAFER	08/29/77	10/01/77	09/12/77
101	NRR 77-4	06/14/77	QUANTIFICATION OF THE SEISMIC DESIGN BASIS FOR FIRE PROTECTION SYSTEMS.	SRR	07/12/77		
102	NRR 77-5	06/23/77	LOSS OF COOLANT ACCIDENT ANALYSIS COMPUTE PROGRAMS.	RSR	05/23/78	07/00/77	

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103	NRR 77-6	06/30/77	MATHEMATICAL SIMULATION AND VERIFICATION OF SEDIMENT AND CONTAMINANT TRANSPORT IN SURFACE WATERS.	SAFER	08/03/78	09/01/77 08/01/76 09/30/77 12/01/77 09/01/77	09/06/78
104	NRR 77-7	07/28/77	EVALUATION OF REMOTE SENSING TO MEET ENVIRON- MENTAL INFORMATION NEEDS.	SAFER	05/15/78		
105	NRR 77-9	06/30/77	ASSESSMENT OF THE SIGNIFICANCE OF NUCLEAR POWER STATION ENTRAINMENT EFFECTS ON PHYTOPLANKTON AND ZOOPLANKTON, WITH AN EVALUATION OF THE NEED FOR FUTURE MONITORING REQUIREMENTS.	SAFER			
106	NRR 77-10	07/14/77	POST LICENSING STUDIES OF THE SOCIOECONOMIC IMPACTS OF NUCLEAR POWER PLANT SITING.	SAFER	04/12/78	10/01/79	04/12/78
107	NRR 77-11	07/19/77	STUDY OF NUCLEAR POWER PLANT DESIGN CONCEPTS FOR SABOTAGE PROTECTION.	SAFER	01/31/78	02/15/78	02/21/78
108	NRR 77-12	07/27/77	REQUEST FOR REVIEW ASSISTANCE.	SRR			
109	NRR 77-13	08/04/77	DEVELOPMENT OF MODELS FOR ASSESSING RISK OF HEALTH EFFECTS AND LIFE-SHORTENING FROM THE URANIUM AND COAL FUEL CYCLES.		03/08/78	01/01/78	
110	NRR 77-14	08/04/77	POST IRRADIATION EXAMINATION OF POINT BEACH UNIT #1 FAILED FUEL RODS.	RSR	09/12/77 04/18/78	09/07/77 09/07/77	09/23/77 11/28/78
111	NRR 77-16	10/26/77	PROBABILISTIC STUDIES OF FLOOD HAZARDS AND FLOODING EFFECTS.	RSR/ SRR	05/31/78		
112	NRR 77-17	09/07/77 05/22/78	EXPERIMENTAL DETERMINATION OF SUSCEPTIBILITY OF STRESS CORROSION CRACKING OF INCONEL-600 TUBING.	RSR	04/21/78 07/12/78	09/00/77	07/12/78
113	NRR 77-18	11/11/77	DYNAMIC TESTING OF OPERATING REACTORS.	RSR	05/05/78	04/01/78	04/03/79
114	NRR 77-19	09/23/77	PHYSICAL PROTECTION COMPUTER MODELS.	SAFER	01/31/78	11/01/77	02/21/78
115	NRR 77-20	01/16/78	DECONTAMINATION EFFECTS ON RADWASTE SYSTEMS. TO ESTABLISH THE CAPABILITY OF RADIOACTIVE WASTE MANAGEMENT SYSTEMS TO PROCESS RADIOACTIVE WASTE THAT MIGHT BE PRODUCED BY DECONTAMINATION AND DECOMMISSIONING OF LIGHT WATER REACTORS.	SAFER	06/02/78	06/12/78	06/25/78
116	NRR 77-21	01/12/78	PIPE TO PIPE IMPACT FOLLOWING PIPE RUPTURE.	RSR	05/19/78	08/00/78	11/26/79
117	NRR 77-22	12/29/77	MODIFICATIONS TO SEMISCALE MOD 3 DOWNCOMER DESIGN FOR UHI SIMULATION.	RSR	02/27/78		

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118	NRR 77-23	11/28/77	SOURCES OF MORTALITY TO ENTRAINED ORGANISMS DURING PASSAGE THROUGH CONDENSER TUBES.	SAFER	02/27/78	12/01/77	11/01/78
119	NRR 77-24	12/02/77	EXPERIMENTAL VERIFICATION OF THE TEARING STABILITY CONCEPT FOR APPLICATION AS A MATERIAL UPPER SHELF FAILURE CRITERION.	RSR	04/20/78 05/26/78	06/00/78	08/01/78
120	NRR 77-25	12/29/77	PATHOGENIC AMOEBA IN CLOSED CYCLE COOLING SYSTEMS OF OPERATING POWER STATIONS.	SAFER	09/21/79	04/01/78	09/27/79
121	NRR 78-1	01/18/78 02/13/78	DETECTION OF PERSONS UNDER ABNORMAL CONDITIONS OF EMOTIONAL STRESS.	SAFER	06/22/78		07/27/78
122	NRR 78-2	02/02/78	CONFIRMATORY ASSESSMENT OF IMPACTS ON HUDSON RIVER WHITE PERCH POPULATION.	SAFER	06/22/78	05/18/76	07/07/78
123	NRR 78-3	02/13/78	DETERMINE ALLOWABLE OUTAGE TIMES AND OPTIMUM COMPONENT TEST FREQUENCIES IN NUCLEAR POWER PLANTS.	SRR			
124	NRR 78-4	03/06/78	REQUIREMENTS FOR REACTOR PHYSICS ANALYSIS COMPUTER PROGRAMS.	RSR	05/04/78		
125	NRR 78-5	03/17/78	RADIATION DOSE ESTIMATION.	SAFER		02/01/76 07/01/77	
126	NRR 78-6	02/24/78	EVALUATION OF ALTERNATIVE PROVISIONS FOR ASSURING SAFE SHUTDOWN AND COOLDOWN FUNCTIONS OF REACTOR PLANTS	SRR	04/17/78		
127	NRR 78-7	03/23/78	NUCLEAR POWER PLANT ENVIRONMENTAL MONITORING. EVALUATION OF ECOSYSTEM SIMULATION MODELS OR TOOLS FOR CONFIRMATORY ASSESSMENT OF POWER PLANT IMPACTS.	SAFER		10/01/77	09/29/78 03/23/78
128	NRR 78-8	04/03/78	STUDIES TO DETERMINE CAPABILITY OF EXISTING PERSONNEL NEUTRON DOSIMETRY SYSTEMS AT OPERATING NUCLEAR POWER REACTORS TO MONITOR REACTOR NEUTRON ENVIRONMENTS.	SAFER	06/20/78 08/03/78	06/01/78 07/01/78	07/12/78 08/21/78
129	NRR 78-9	05/01/78	ASSISTANCE IN EVALUATING AND CONFIRMING ECCS ANALYSIS FOR FORT ST. VRAIN.	RSR	05/26/78	1978	11/28/78
130	NRR 78-10	05/10/78	BEHAVIOR OF THE PRESSURIZER SAFETY RELIEF VALVES DURING SUBCOOLED DISCHARGES.	SRR/RSR	08/25/78	1978	
131	NRR 78-11	05/30/78	IDENTIFICATION OF RESEARCH NEED - METHODS TO ASSESS IMPACTS ON STRIPPED BASS.	SAFER	08/18/78	06/00/75	09/01/78
132	NRR 78-12	05/15/78	REQUIREMENTS FOR REACTOR PHYSICS ANALYSIS COMPUTER PROGRAM.	RSR			

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133	NRR 78-13	06/01/78	ACCELERATION OF VERIFICATION TESTING OF VERTICAL AND HORIZONTAL CABLE TRAY FIRE PROTECTION SYSTEMS.	RSR		1978	
134	NRR 78-14	07/12/78	EVALUATION OF GENERAL EMERGENCY BASIS AND RISK OF A REPRESSURIZATION SYSTEM IF USED AS A PRIMARY MEANS FOR COMBUSTIBLE GAS CONTROL FOLLOWING A LOCA.				
135	NRR 78-15	06/27/78	CONFIRMATORY RESEARCH STUDY OF A REPLACED STEAM GENERATOR FOR VARIOUS CAUSES AND FORMS OF DEGRADATION.	RSR	07/18/79	09/00/79	08/10/79
136	NRR 78-16	11/02/78	INDEPENDENT ANALYSIS OF THE OSCILLATORY BEHAVIOR OF THE FORT ST. VRAIN REACTOR.	RSR		11/00/78	01/05/79
137	NRR 78-17	08/07/78	IODINE TRANSPORT MECHANISMS UNDER STEAM GENERATOR TUBE FAILURE CONDITIONS.	RSR	08/07/79	08/28/79	09/27/79
138	NRR 78-18	11/11/77	STATISTICAL HYDROLOGIC MODELS.	SAFER			
139	NRR 78-19	09/23/77	DETECTION OF HIGH EXPLOSIVES EMPLOYING CHEMILUMINESCENCE REACTIONS.	SAFER	12/11/78		
140	NRR 79-1	01/05/79	NRR REQUIREMENTS FOR VERIFICATION OF PIPING STRUCTURES ANALYSIS COMPUTER PROGRAMS.	RSR	03/07/79		03/19/79
141	NRR 79-2	01/17/79	ECC STANDARD PROBLEM PROGRAM.	RSR		01/17/79	11/28/78
142	NRR 79-3	01/31/79	ENVIRONMENTAL MONITORING WITH THERMO-LUMINESCENT DOSIMETERS (TLD'S).ING.	SAFER		07/15/78	
143	NRR 79-4	01/19/79	FIRE PROTECTION RESEARCH REPLICATION TESTS.	RSR			
144	NRR 79-5	02/13/79	RATE OF TRANSFORMATION OF HYDROXIDE AEROSOLS TO SODIUM CARBONATE IN THE AIR.				
145	NRR 79-6	03/21/79	SURVEY OF PROBLEMS ASSOCIATED WITH SABOTAGE BY EXPLOSIVES OR INCENDIARY DEVICES.	SAFER			
146	NRR 79-7	03/23/79	EARTHQUAKE INDUCED FOUNDATION SETTLEMENT. QUAKE INDUCED FOUNDATION SETTLEMENT.	RSR	09/25/79		09/27/79
147	NRR 79-8	02/28/79	IMPLEMENTATION OF SECURITY TRAINING AND QUALIFICATION REQUIREMENTS.	SAFER	05/14/79		05/23/79
148	NRR 79-9	04/11/79	AUDIT CAPABILITY IN THE AREA OF THERMAL-OF THERMAL-HYDRAULIC STABILITY.	RSR		09/05/78	11/16/79

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149	NRR 79-10	04/13/79	TECHNOLOGY FOR CORE MELT RETENTION CONCEPT ASSESSMENT. MATERIALS INTERACTIONS BETWEEN CORE MELT DEBRIS AND VARIOUS REFRACTORY MATERIALS.	RSR	09/21/79		09/27/76
150	NRR 79-11	04/13/79	COMPUTER CODES FOR SOIL STRUCTURE INTERACTIONS.	RSR		05/01/79	04/11/80
151	NRR 79-12	04/26/79	MODIFICATION OF POST-LICENSING STUDIES OF THE SOCIOECONOMIC IMPACTS OF NUCLEAR POWER STATION SITING.	SAFER		06/01/79	
152	NRR 79-13	05/15/79	SEMISCALE PROGRAM.	RSR	04/08/80	12/01/79	
153	NRR 79-14	05/24/79	ACQUISITION AND DEPLOYMENT OF A PORTABLE SEISMIC ARRAY IN NEW ENGLAND.	RSR			
154	NRR 79-15		POST LOCA DEGRADATION EFFECTS AND COMBUSTION GAS GENERATION RATES.	RSR	04/07/80	1980	04/28/80
155	NRR 79-16	07/30/79	CONTINUOUS ON-LINE REACTOR SURVEILLANCE SYSTEM.	RSR	11/09/79	1980	12/27/79
156	NRR 79-17	08/07/79	PELLET/CLADDING INTERACTION (PCI) IN REACTOR POWER RAMP DATA.	RSR			
157	NRR 79-18	08/13/79	EVALUATE NRC NUCLEAR DATA LINE (NDL) REQUIREMENTS.	SAFER	10/26/79	10/30/79	10/30/79
158	NRR 79-19		DEVELOPMENT OF REAL TIME ATMOSPHERIC DISPERSION MODEL.	SAFER			
159	NRR 79-20	08/17/79	NONEQUILIBRIUM HEAT TRANSFER MODEL.	RSR	12/26/79		01/18/80
160	NRR 79-21	09/05/79	EFFECTS OF LAMELLAR TEARING.	RSR	11/27/79		
161	NRR 79-22	08/30/79	LAND VALUE/LAND USE IMPACT STUDIES.	SAFER	11/27/79	04/20/80	12/05/79
162	NRR 79-23	09/21/79	FEASIBILITY STUDY OF USING A NOISE ANALYSIS METHOD FOR DETERMINING REACTIVITY DURING A CORE TRANSIENT OR ACCIDENT.	RSR			
163	NRR 79-24	10/15/79	CONFIRMATORY RESEARCH TO DETERMINE THE CAPACITY OF DEGRADED PIPING TO WITHSTAND ACCIDENT LOADS.	RSR	06/27/80		09/05/80 (PHASE 1)
164	NRR 79-25	11/27/79	CONFIRMATORY RESEARCH TO THE PERFORMANCE OF ACTIVATED CHARCOAL IN VENTILLATION EXHAUST SYSTEMS AT NUCLEAR POWER PLANTS DURING ACCIDENT CONDITIONS.	RSR	03/12/80	07/30/80	03/21/80
165	NRR 79-26	06/28/79	EVALUATION OF ECOSYSTEM SIMULATIONS MODELS AS TOOLS FOR ASSESSMENT OF POWER PLANT IMPACTS ON FISH POPULATIONS.	SAFER	11/06/79		
166	NRR 79-27	11/28/79	TWO LOOP TEST APPARATUS (TLTA) SMALL BREAK TESTS.	RSR	01/30/80	12/01/79	

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167	NRR 79-29	12/05/79	INCREASED SEISMIC MONITORING IN THE REGION AROUND RAMAPO FAULT.	RSR			
168	NRR 79-30	12/27/79	TWO PHASE NATURAL CIRCULATION AND PUMP PERFORMANCE.	RSR	02/15/80	04/01/80	03/15/80
169	NRR 80-1	01/18/80	BEHAVIOR OF SAFETY AND RELIEF VALVES AND ASSOCIATED BLOCK VALVES.	RSR	03/27/80	1980	04/28/80
170	NRR 80-2	01/22/80	CONCEPT AND OMCOST CODE DEVELOPMENT.	SAFER	09/02/80		
171	NRR 80-3	04/15/80	PHASE II WORK PLAN ON LOAD COMBINATIONS.	RSR	06/06/80		
172	NRR 80-4	07/17/80	CONTAINMENT SYSTEMS FOR MITIGATION OF DEGRADED CORE/CGRE MELT ACCIDENTS.	RSR			
173	NRR 80-5	08/14/80	ASSESSMENT OF ADEQUACY OF EMERGENCY PLANS.	RSR		1981	
174	NRR 80-6	08/22/80	P-32 BIOACCUMULATION FACTORS IN FISH.			1981	
175	OSP 76-1	11/03/76	RADIOLOGICAL EMERGENCY INSTRUMENTATION.	SAFER	08/30/77	01/04/77	09/02/77
176	OSP 77-1	07/22/77	INTEGRATED REGIONAL APPROACH TO REGULATORY ENERGY FACILITY SITING.	SAFER	06/01/78 07/12/79	10/01/77	
177	OSP 78-1	04/25/78	TRANSPORT OF RADIOACTIVE MATERIALS IN THE ROCKY MOUNTAIN REGION.	SAFER			
178	OSP 78-2	04/25/78	EMERGENCY RADIOLOGICAL INSTRUMENTATION.	SAFER	11/16/79	12/28/79	12/19/79
179	RES 76-1	10/22/76	FISSION PRODUCT TRANSPORT TEST FACILITY.	RSR		10/00/76	
180	RES 77-1	02/10/77	EXPERIMENTAL INVESTIGATION ON THE EFFECTS OF INHALED RADIONUCLIDES IN THE LUNG.	SAFER		08/01/77 08/01/77	
181	RES 77-2	05/19/77	DYNAMIC ASSESSMENT OF NORMAL TRANSPORTATION.	SAFER	05/19/77	01/00/76 01/00/77	06/30/77 07/04/77
182	RES 77-3	08/18/77	HUMAN EXPOSURE AND HEALTH EFFECTS OF THORIUM.	SAFER	08/18/77	07/00/76	09/02/77

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183	RES 78-1	02/13/78	LOCA HEATUP EXPERIMENTS IN NRU.	RSR	02/13/78		03/07/78
184	RES 79-2		DATA LINK FOR ENVIRONMENTAL MONITORING.	RSR			
185	RES 79-3		EMERGENCY PREPAREDNESS - FEDERAL.	SAFER			
186	RES 79-4		EMERGENCY PREPAREDNESS - STATE AND LOCAL.	SAFER			
187	RES 79-5	02/02/79	QUALIFICATION OF NUCLEAR POWER PLANT MECHANICAL AND ELECTRICAL EQUIPMENT.	RSR	07/14/80		05/22/80
188	RES 79-6	12/18/79	PLANT DATA BANK.	RSR			02/22/80
189	RES 80-1	01/30/80	ADEQUACY OF CODES, STANDARDS AND SAFETY EVALUATION METHODS FOR REINFORCED CONCRETE NUCLEAR STRUCTURES.	RSR	N/A		03/18/80
190	RES 80-2	12/18/79	LONG-TERM PERFORMANCE OF MATERIALS USED FOR HIGH LEVEL RADIOLOGICAL WASTE PACKAGING.	RSR			
191	RES 80-3	06/27/80	SURGE WAVE AND METEOROLOGICAL MEASUREMENTS ALONG THE COAST OF FLORIDA.	RSR			
192	RES 80-4	07/16/80	DATA BANK SURVEY (MEASURED INFORMATION REPOSITORY).	RSR			
193	RES 80-5	07/16/80	HYDROGEN IGNITION IN ICE CONDENSE PLANTS.	RSR		08/01/80	
194	RES 80-6	07/21/80	BWR THERMAL HYDRAULICS PHENOMENA.				
195	RES 80-7	07/29/80	POST ACCIDENT IODINE RESEARCH	RSR			
196	RES 80-8	08/01/80	CORE MELT MITIGATION SYSTEM.	RSR		07/01/80	
197	RES 80-9		DETECTION OF FREE LIQUID IN DRUMS OF SOLIDIFIED NUCLEAR WASTE.	SAFER			
198	RES 80-10		ICRP MODELS FOR CALCULATING INTERNAL DOSE.	SAFER		1981	08/19/80
199	RES 80-11	09/04/80	AMERICAN NUCLEAR SOCIETY (ANS) PUBLICATIONS.	RSR		10/01/80	09/09/80
200	RES 80-12	09/24/80	ANALYSIS OF CONTAINMENT SYSTEMS RESPONSE TO SERIOUS ACCIDENTS.	RSR		1981	
201	RES 80-13	09/23/80	SEVERE ACCIDENT SEQUENCE ANALYSIS	RSR			
202	SD 76-1	05/25/76	RISK ASSESSMENT OF A BWR MARK I TYPE CONTAINMENT MODEL WITHOUT INERTING.	SRR		05/25/76	
203	SD 76-2	11/03/76	EXTENSION OF WASH-1400 RESULTS TO INVESTIGATE CONSEQUENCE VARIATIONS FOR DESIGN BASIS ACCIDENTS, CLASS 3 THROUGH 8.	SRR	02/11/77		

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204	SD 77-1	01/14/77	INTERNAL DOSE CONVERSION FACTORS.	SAFER	10/31/77	01/01/77	
205	SD 77-2	05/06/77	CONSEQUENCES OF A LOSS OF COOLING/SHIELDING WATER IN A LARGE SPENT FUEL STORAGE POOL. (EXPANSION OF CURRENT CONTRACT AT SANDIA LABORATORIES.)	RSR			06/20/77
206	SD 77-3	05/06/77	DEVELOPMENT PROGRAM IN MEASUREMENTS AND STAND- ARDS FOR SAFEGUARDING SPECIAL NUCLEAR MATERIAL.	SAFER	05/31/77	08/00/77	05/31/77
207	SD 77-4	06/27/77	BIOLOGICAL EFFECTS OF UF6/UO2F2 IN EXPERI- MENTAL ANIMALS.	SAFER	10/25/77	08/00/77	10/25/77
208	SD 77-5	07/19/77	ANALYSIS OF DATA ON HEALTH EFFECTS OF OCCUPA- TIONAL EXPOSURE TO LOW LEVELS OF IONIZING RADIATION.	SAFER			
209	SD 77-6	08/01/77	ASSESSMENT OF RESPIRATORY PROTECTION SYSTEMS.	SAFER		10/01/76 10/01/76	08/01/77
210	SD 77-7	08/19/77	QUALIFICATION TESTING EVALUATION.	RSR	06/27/78	1976	
211	SD 77-8	08/19/77	METHODS TO EVALUATE THE CONTRIBUTION TO SAFETY OF INSERVICE INSPECTION PROGRAMS.	SRR	04/24/78		
212	SD 77-9	08/19/77	ADDITIONAL REQUIREMENTS FOR DESIGN AND FABRICA- TION OF NUCLEAR COMPONENTS.	RSR	06/15/78		
213	SD 77-10	08/19/77	FIRE PROTECTION PROGRAMS.	RSR	04/28/78		
214	SD 77-11	08/19/77	ANALYTICAL AND EXPERIMENTAL STUDIES OF NONLINEAR	RSR	06/01/78		
215	SD 77-12	08/19/77	PRODUCT SAFETY TESTING PROGRAM.	SAFER			
216	SD 77-13	08/19/77	PLUTONIUM OXIDE LEAK RATES FROM SHIPPING CONTAINERS.	SAFER	11/08/77	06/00/76	12/01/77

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217	SD 77-14	08/19/77	DYNAMIC ANALYSIS OF SHIPPING CASK DURING NORMAL TRANSPORTATION.	SAFER	05/19/77	01/00/76	06/30/77
218	SD 77-15	04/08/76 04/18/76 05/10/76 04/15/77	SPENT FUEL TRANSPORT ACCIDENTS.	SAFER	06/07/77	08/14/78	07/14/77 06/22/77 08/12/78
219	SD 77-16	08/19/77	REGIONAL SEISMIC AND GEOLOGIC STUDIES.	RSR	04/30/78		
220	SD 77-17	08/19/77	RESEARCH IN THE AREA OF EARTHQUAKE RISK.	SRR/RSR	04/30/78		
221	SD 77-18	08/19/77	ENVIRONMENTAL IMPACT OF BY-PRODUCT MANUFAC- TURERS AND MEDICAL USES OF BY-PRODUCT MATERIALS.	SAFER	11/22/77 03/25/78	10/31/77 10/01/77	
222	SD 77-19	08/19/77	ASSESSMENT OF ENVIRONMENTAL TECHNICAL SPECIFICA- TIONS (NON-RADIOLOGICAL).	SAFER			
223	SD 77-20	08/19/77	DEVELOPMENT AND CONFIRMATION OF BIOTRANSPORT AND DOSIMETRY MODELS TO IMPLEMENT 10 CFR 50, APPENDIX 1.	SAFER		04/01/78	
224	SD 77-21	08/19/77	DEVELOPMENT OF INTERNAL DOSE DATA AND ASSESSMENT SYSTEM AT ORNL.	SAFER			
225	SD 77-22	08/19/77	DEVELOPMENT OF PERFORMANCE CRITERIA FOR QUALITY CONTROL OF RADIOANALYTICAL LABORATORIES.	SAFER			
226	SD 77-23	08/19/77	METABOLIC DATA FOR INTERVAL DOSIMETRY OF HEAVY ELEMENT BURDENS WITH AND WITHOUT DTPA THERAPY.	SAFER			
227	SD 77-24	08/19/77	TOXICITY AND RADIOACTIVITY OF URANYL FLUORIDE (UO ₂ F ₂).	SAFER		01/01/78	10/28/78
228	SD 77-25	08/19/77	RISK ASSESSMENT FOR THE FRONT END OF THE NUCLEAR FUEL CYCLE.	SRR		10/00/78	
229	SD 77-26	08/19/77	EXPOSURE AND HEALTH FOLLOW-UP STUDIES OF LICEN- SEE EMPLOYEES.	SAFER	09/30/78		
230	SD 77-27	04/08/76 05/10/76 04/15/77 04/18/76	SCOPING SPENT FUEL TRANSPORT ACCIDENTS.	SAFER	06/07/77	08/14/78	06/22/77 08/12/78

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231	SD 77-28	10/03/77	SYSTEMATIC ERROR OF MEASUREMENT FOR SAFEGUARD- ING SPECIAL NUCLEAR MATERIAL.	SAFER	11/08/77		11/23/77
232	SD 77-30	12/05/77	SOLUBILITY OF YELLOWCAKE IN THE HUMAN RESPIRA- TORY TRACT.	SAFER	06/20/78	06/01/78	07/18/78
233	SD 77-31	12/22/77	INHALATION OF FUEL MATERIALS.	SAFER		10/01/77	
234	SD 78-1	01/13/78	SOIL-PLANT TRANSFER OF PLUTONIUM AND OTHER TRANSURANIC ELEMENTS.	SAFER		10/01/77 07/00/76	
235	SD 78-2	06/00/78	SAFETY RELATED OPERATOR ACTION.	RSR			
236	SD 78-4	02/14/78	CRITERIA AND TEST METHODS FOR CERTIFYING AIR- PURIFYING RESPIRATORS AGAINST RADIOIODINE.	SAFER	01/10/78		03/06/78
237	SD 78-5	02/14/78	ASSESSMENT OF RESPIRATORY PROTECTION SYSTEMS.	SAFER		10/01/77	
238	SD 78-6	02/24/78	EVALUATION OF ALTERNATIVE PROVISIONS FOR ASSUR- ING SAFE SHUTDOWN AND COOLDOWN FUNCTIONS OF REACTOR PLANTS.	SRR	04/14/78		
239	SD 78-7	06/22/78	RESEARCH IN SUPPORT OF LICENSING ACTIONS ON THE STORAGE OF SPENT FUEL IN AN ISFSI.	SAFER			
240	SD 78-8	06/27/78	LONG LIVED ACTIVATION PRODUCTS IN REACTOR MTL'S. IDENTIFY AND CHARACTERIZE ACTIVATED IMPURITIES IN REACTOR MATERIALS OF IMPORTANCE TO DECOMMISSIONING.	SAFER	12/01/78	01/16/79	12/18/78
241	SD 78-9	08/12/78	EVALUATION OF GENERAL ENGINEERING BASIS AND RISK OF A REPRESSURIZATION SYSTEM IF USED AS A PRIMARY MEANS FOR COMBUSTIBLE GAS CONTROL FOLLOWING A LOCA.	RSR			
242	SD 78-10	12/18/78	GENETIC IMMUNE DISORDERS AND ANEMIA IN RADIATION LEUKEMOGENESIS.	SAFER		1979	
243	SD 78-11	12/18/78	BIODOSIMETRIC CONFIRMATION OF DOSE RATE AMELIORATION FACTORS.	SAFER		10/01/77	
244	SD 79-1	03/05/79	MODEL STUDY OF TRANSPORTATION SAFETY.	SAFER	11/06/79	06/00/80	11/27/79
245	SD 79-2	03/26/79	SHUDBER SYSTEMS APPLICATION DESIGN AND TESTING.	RSR	07/02/79	08/01/79	07/26/79
246	SD 79-3	01/10/79	MATERIAL CONTROL AND ACCOUNTING HOLDUP STUDIES.	SAFER			
247	SD 79-4	09/24/79	DECAY SCHEME OF TECHNETIUM-99M.				
248	SD 79-6	12/07/79	GASTROINTESTINAL ABSORPTION FACTORS FOR PLUTONIUM AND OTHER ACTINIDE ELEMENTS.	SAFER	01/30/80		02/07/80

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249	SD 80-1	03/04/80	LOW DOSE EFFECTS OF NEUTRONS AND GAMMA RADIATION.	SAFER	03/01/80	10/01/80	08/15/80
250	SD 80-2	08/15/80	SIMULATOR TECHNOLOGY				
251	SD 80-3	08/22/80	RESONANCE NEUTRON RADIOGRAPHY	SAFER			
252	ACRS 79-1		SYNERGISTIC EFFECTS OF RAD. AND NON-RAD.	SAFER			
253	ACRS 79-2		NEUTRON DOSIMETRY EVALUATION.	SAFER			

RESEARCH REQUESTS

REFERENCE NUMBER: I&E 75-1 FIN # B5718 ASSIGNED TO: SAFER CONTRACTOR: MITRE
RES. CONTACT: M. HAWKINS USER CONTACT: O. CHAMBERS
DATE REQUESTED: 11/18/75 RESPONSE LTR DATE: 10/29/75 PROJECT START: 10/08/76
DUE NEEDED: USER AGREEMENT ON: 11/18/75 PROJECT END: 09/30/77

IDENTIFICATION OF REQUEST

PHYSICAL DETECTION INSPECTION METHODS SAFEGUARDS RESEARCH TO SUPPORT INSPECTION ACTIVITIES

BASIS FOR NEED

TO PROVIDE NRC INSPECTORS WITH A WAY OF DETERMINING WHETHER LICENSEES ARE PROVIDING EFFECTIVE SAFEGUARDS IN COMPLIANCE WITH THE REGULATIONS. THE SPECIFIC PROBLEM AREAS ARE:

- A) PROVIDE UNIFORMITY AND OBJECTIVITY IN MEASURING THE PERFORMANCE CHARACTERISTICS OF THE INDIVIDUAL SAFEGUARDS MECHANISM INSTALLED AND IMPLEMENTED AT LICENSEE FACILITIES.
- B) ESTABLISH MINIMUM PERFORMANCE CRITERIA FOR THE INDIVIDUAL MECHANISMS AND FOR THE COMBINATIONS OF MECHANISMS WHICH CONSTITUTE SUBSYSTEMS.
- C) OTHER AREAS INCLUDE THE ESTABLISHMENT OF A CAPABILITY FOR NEEDED TECHNOLOGICAL IMPROVEMENTS BY TECHNICAL SUPPORT OF INSPECTION ACTIVITIES; THE ASSESSMENT OF ADVERSARY TESTING AS AN INSPECTION CONCEPT; THE BASIS FOR INSPECTING INDUSTRY IMPLEMENTATION OF PERSONNEL SCREENING OR RELIABILITY TESTING AND THE DESIGN AND SPECIFICATION OF A SAFEGUARDS INFORMATION SYSTEM.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

DOCUMENTS ISSUED: NUREG-0270, 0271, 0272, 0273 AND 0274.

REFERENCE NUMBER: I&E 76-1 FIN # B6164 ASSIGNED TO: SRR CONTRACTOR: BCL
RES CONTACT: J. PITTMAN USER CONTACT: E. LEGASEY
DATE REQUESTED: 05/26/76 RESPONSE LTR DATE: 03/08/77 PROJECT START: 03/00/77
DATE NEEDED: 1977-1978 USER AGREEMENT ON: 03/15/77 PROJECT END: 10/00/77

IDENTIFICATION OF REQUEST

APPLICATION OF REACTOR SAFETY STUDY TO INSPECTION AND ENFORCEMENT.

BASIS FOR NEED

NEED TO IMPROVE THE EFFICIENCY AND SAFETY EFFICACY OF THE I&E INSPECTION PROCESS

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

WORK WAS PERFORMED BY BATTELLE COLUMBUS LABORATORIES. REPORT RELEASED AS NUREG/CR-0153.

REFERENCE NUMBER: I&E 76-2 FIN # N/A ASSIGNED TO: SRR CONTRACTOR: N/A

RES CONTACT: I. WALL USER CONTACT:

DATE REQUESTED: 05/26/76 RESPONSE LTR DATE: 03/08/77 PROJECT START:

DATE NEEDED: 1977-1978 USER AGREEMENT ON: 03/15/77 PROJECT END:

IDENTIFICATION OF REQUEST

INSPECTION EFFORT FOR OTHER HUMAN ENDEAVORS

BASIS FOR NEED

TO COMPARE EXPENDITURES AND RISKS FOR VARIOUS LEVELS OF INSPECTION WITH OTHER SEXUAL SAFETY PROGRAMS INVOLVING HUMAN ENDEAVORS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

RES HAD NO AVAILABLE FUNDS TO PURSUE THIS PROJECT FOR FY78. I&E HAS GONE OUT WITH AN RFP TO CONTRACT THE WORK ON A TECHNICAL ASSISTANCE PROJECT.

REFERENCE NUMBER: I&E 76-3 FIN # 02091 ASSIGNED TO: SAFER CONTRACTOR: PNL
RES CONTACT: J. FOULKE USER CONTACT: D. SLY
DATE REQUESTED: 05/26/76 RESPONSE LTR DATE: PROJECT START: 07/01/76
DATE NEEDED: 1977-1978 USER AGREEMENT ON: PROJECT END: 1980

IDENTIFICATION OF REQUEST

PROCESS AND EFFLUENT MONITORING/PORTABLE INSPECTION EQUIPMENT

BASIS FOR NEED

PROVIDE DATA ON MONITORING INSTRUMENTATION TO ENSURE COMPLIANCE WITH NRC REGULATIONS AND PUBLIC SAFETY.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

DOCUMENTS ISSUED: RIL #86, 04/80
NUREG/CR-1107, 11/79

REFERENCE NUMBER: I&E 76-4 FIN # NONE ASSIGNED TO: RSR CONTRACTOR: NONE

RES CONTACT: W. FARMER

USER CONTACT: E. JORDAN

DATE REQUESTED: 05/26/76 RESPONSE LTR DATE: PROJECT START: NONE

DATE NEEDED: USER AGREEMENT ON: NONE PROJECT END:

IDENTIFICATION OF REQUEST

PORTABLE INSPECTION EQUIPMENT.

BA'S FOR NEED

NEED TO DESIGN, DEVELOP AND TEST PROTOTYPE PORTABLE INSTRUMENTATION USED DURING INSPECTION AND INCIDENTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

THE I&E BRANCH CHIEFS (L. HIGGINBOTHAM AND JIM SHIEZEK) AGREED THAT UNTIL INFORMATION BECOMES AVAILABLE FROM CURRENT I&E STUDIES, THE WRSR PROGRAMS CONCERNING PROCESS & EFFLUENT MONITORING INSTRUMENTATION AND PORTABLE INSPECTION EQUIPMENT DEVELOPMENT SHOULD BE RETAINED IN THE PROGRAM PLANS BUT NOT BE ACTED ON.

REFER TO 3/30/77 MEMO FROM W. S. FARMER TO L. S. TONG ON I&E RESEARCH SUPPORT.

FOLLOW-UP PHONE CONVERSATIONS WERE HELD WITH SEYFRIT AND JORDAN ON 1/3/78 CONCERNING IE PLANS. JORDAN HAS BEEN ASSIGNED THE RESPONSIBILITY FOR RESEARCH COORDINATION. THE REQUIREMENTS FOR THIS TASK HAD NOT BEEN DEFINED, BUT WERE TO BE DISCUSSED. A PHONE CONVERSATION DURING APRIL 78 WITH JORDAN INDICATES THAT REQUIREMENTS FOR THIS TASK ARE CURRENTLY BEING WRITTEN BY IE.

REFERENCE NUMBER: I&E 76-5 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT:

USER CONTACT:

DATE REQUESTED: 05/26/76 RESPONSE LTR DATE: 03/08/77 PROJECT START:

DATE NEEDED: USER AGREEMENT DUE: 03/15/77 PROJECT END:

IDENTIFICATION OF REQUEST

DEVICES FOR TRACKING SNM IN TRANSPORTATION.

BASIS FOR NEED

TO RECOMMEND A SNM TRACKING SYSTEM TO I&E.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

SUGGESTED AS A TECHNICAL SUPPORT PROJECT.

REFERENCE NUMBER: I&E 77-1 FIN # B6266 ASSIGNED TO: SAFER CONTRACTOR: GA INST OF TECH
RES CONTACT: J. FOULKE USER CONTACT: B. WEISS
DATE REQUESTED: 06/14/77 RESPONSE LTR DATE: 09/06/77 PROJECT START: 07/20/77
06/11/80
DATE NEEDED: USER AGREEMENT ON: 09/22/77 PROJECT END: 1980

IDENTIFICATION OF REQUEST

EVALUATION OF THE BIOACCUMULATION FACTOR FOR P-32 IN FISH.

BASIS FOR NEED

STAFF CONCERN REGARDING THE ACCURACY OF THE BIOACCUMULATION OF P-32 IN FISH AND THE POSSIBILITY THAT REACTOR LICENSEES SHOULD BE REQUIRED TO MAKE APPROPRIATE MEASUREMENTS TO DETERMINE THE IMPACT OF THIS PATHWAY, (FOR TRANSPORT OF RADIOACTIVITY TO MAN) RESULTING FROM THE OPERATION OF THEIR FACILITY.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

REFERENCE NUMBER: I&E 77-2 FIN # A3211 ASSIGNED TO: SAFER CONTRACTOR: BNL
 RES CONTACT: R. SHEPARD USER CONTACT: MCCORMICK
 DATE REQUESTED: 11/17/77 RESPONSE LTR DATE: 03/07/78 PROJECT START: 04/01/78
 DATE NEEDED: USER AGREEMENT ON: PROJECT END: 12/31/78

IDENTIFICATION OF REQUEST

SUPPORT OF I&E'S INSPECTION PROGRAM.

BASIS FOR NEED

TO PROVIDE I&E WITH A MEANS OF SHOWING THE RELATIONSHIP BETWEEN THE INSPECTOR'S ACTIVITIES
 AND THE PREVENTION OF COVERT REMOVAL OF SNM BY AN INSIDER.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED. RESPONSE LETTER SENT TO USER OFFICE 03/07/78.

REFERENCE NUMBER: I&E 77-3 FIN # B0417 ASSIGNED TO: RSR CONTRACTOR: ORNL (UNION CARBIDE)

RES CONTACT: J. MUSCARA

USER CONTACT: W. COLLINS

DATE REQUESTED: 11/18/77 RESPONSE LTR DATE: 01/04/78 PROJECT START: 10/01/78

DATE NEEDED: USER AGREEMENT ON: 01/10/78 PROJECT END: 09/30/81

IDENTIFICATION OF REQUEST

OPTIMIZATION OF EDDY CURRENT SYSTEMS FOR INSPECTION OF STEAM GENERATOR TUBING IN PWR PLANTS.

BASIS FOR NEED

TO PROVIDE IMPROVED EDDY CURRENT PROBE COILS, INSTRUMENTATION, AND EXAMINATION TECHNIQUES FOR USE IN FIELD INSPECTION TESTS OF STEAM GENERATOR TUBING.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

WORK IS UNDERWAY AT ORNL.

DOCUMENTS ISSUED: NUREG/CR-0164, 06/78
NUREG/CR-0479, 11/78
NUREG/CR-0520, 12/78
NUREG/CR-0764, 05/79
NUREG/CR-1069, 10/79

REFERENCE NUMBER: I&E 78-1 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: F. SWANBERG

USER CONTACT:

DATE REQUESTED: 04/07/78 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED: USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

RESPONSE EFFICIENCY OF MONITORING INSTRUMENTS FOR HIGH ENERGY
GAMMAS .

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: I&E 78-2 FIN # B7095 ASSIGNED TO: RSR CONTRACTOR: NONE

RES CONTACT: W. FARMER USER CONTACT: E. L. JORDAN

DATE REQUESTED: 07/28/78 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

I&E REACTOR SAFETY RESEARCH NEEDS

BASIS FOR NEED

I&E REQUIRES SUPPORT IN TWO BROAD AREAS:

- 1) METHODS FOR IMPROVING THE NRC ASSESSMENT LICENSEE PERFORMANCE
- 2) UNDERSTANDING HOW HUMAN ERRORS CONTRIBUTE TO LICENSEE NON-ROUTINE EVENTS:

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: I&E 78-3 FIN # A6288 ASSIGNED TO: SAFER CONTRACTOR: INEL
 RES CONTACT: P. REED USER CONTACT: B. WEISS
 DATE REQUESTED: 08/10/78 RESPONSE LTR DATE: 07/23/79 PROJECT START:
 DATE NEEDED: FY-81 USER AGREEMENT ON: 07/30/79 PROJECT END: 09/30/80

IDENTIFICATION OF REQUEST

IODINE PATHWAY STUDY

BASIS FOR NEED

TO EVALUATE DATA AND INFORMATION COLLECTED IN FIELD PROGRAM AT QUAD CITIES
 NUCLEAR STATION FOR THE PURPOSE OF DETERMINING REASONABLES OF AN AIR-GRASS-
 COW MILK MODEL FOR RADIOIODINE USED IN THE LICENSING PROCESS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

A RELATED STUDY, FIN #A6078, ON RADIOIODINE IN ENVIRONMENT IS COMPLETED
 AND A FINAL NUREG REPORT IS BEING PRINTED.

REFERENCE NUMBER: I&E 78-4 FIN # A4052 ASSIGNED TO: RSR CONTRACTOR: GARD
B3012 GE

RES CONTACT: W. COLLINS

USER CONTACT: W. COLLINS

DATE REQUESTED: 11/29/78 RESPONSE LTR DATE: N/A PROJECT START: 07/01/75

DATE NEEDED: USER AGREEMENT ON: 11/29/78 PROJECT END: 09/30/80

IDENTIFICATION OF REQUEST

ACOUSTICAL EMISSION TECHNIQUES

BASIS FOR NEED

TO PROVIDE A QUANTITATIVE TOOL IN WELDING FABRICATION CONTROL AS WELL AS
IDENTIFYING EXISTING SERVICE SENSITIVE WELDS IN OPERATING BWR PIPING SYSTEMS.
TO ENHANCE I&E'S INDEPENDENT MEASUREMENTS AND ANALYSIS PROGRAM CAPABILITIES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

BOTH PROGRAMS ARE COMPLETE. RIL'S ARE BEING PREPARED.

DOCUMENTS ISSUED:

A4052 - NUREG/CR-0461, 11/78	B3012 - NUREG/CR-0306, 09/78
NUREG/CR-0703, 03/79	NUREG/CR-0541, 01/79
	NUREG/CR-0567, 10/78

REFERENCE NUMBER: I&E 79-1 FIN # ASSIGNED TO: SAFER CONTRACTOR: LLL
RES CONTACT: E. RICHARD USER CONTACT:
DATE REQUESTED: 03/14/79 RESPONSE LTR DATE: 05/14/79 PROJECT STA: *
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

INSPECTION & EVALUATION OF CONTINGENCY PLANS AND GUARD TRAINING AND
QUALIFICATION PLANS

BASIS FOR NEED

PROVIDE DATA BASE FOR THE I&E COMPLIANCE INSPECTION AND ADEQUACY EVALUATION
METHODOLOGY.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: I&E 79-2* FIN # A1239 ASSIGNED TO: SAFER CONTRACTOR: SANDIA

RES CONTACT: S. BASSETT

USER CONTACT: M. HOWARD

DATE REQUESTED: 08/13/79 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: 06/01/80 USER AGREEMENT ON: 10/30/79 PROJECT END: 06/01/80

IDENTIFICATION OF REQUEST

EVALUATE NRC NUCLEAR DATA LINE (NDL) REQUIREMENTS

BASIS FOR NEED

TO EVALUATE HOW TO ESTABLISH A REAL-TIME CAPABILITY TO RECEIVE AND RECORD
PLANT DATA AT NRC'S HEADQUARTERS OPERATIONS CENTER.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

* SEE ALSO NRR-79-18.

REFERENCE NUMBER: I&E 80-1 FIN # B7259 ASSIGNED TO: SAFER CONTRACTOR: NBS
RES CONTACT: P. REED USER CONTACT: COHEN
DATE REQUESTED: 05/06/80 RESPONSE LTR DATE: 09/04/80 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

QUALITY ASSURANCE OF RADIATION MEASUREMENTS FOR REGULATORY PURPOSES

BASIS FOR NEED

TO SUPPORT THE NRC INDEPENDENT MEASUREMENT PROGRAM BEING IMPLEMENTED AT NRC
 LICENSED FACILITIES; INCLUDING NUCLEAR POWER PLANTS, FUEL FACILITIES AND
 BYPRODUCT MATERIAL USERS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 76-1 FIN # A3043 ASSIGNED TO: SAFER CONTRACTOR: BNL:
RES CONTACT: W. MURPHY USER CONTACT: EISENSTEIN
DATE REQUESTED: 04/09/76 RESPONSE LTR DATE: PROJECT START: 07/01/76
DATE NEEDED: USER AGREEMENT ON: PROJECT END: 12/31/76

IDENTIFICATION OF REQUEST

INTERIM RULES ASSESSMENT TECHNIQUES/EVALUATION METHOD ASSESSMENT

BASIS FOR NEED

TO PROVIDE METHODS OF ASSESSING WHETHER A PROPOSED NUCLEAR SAFEGUARDS SYSTEM SATISFIES
INTERIM RULES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

PROJECT COMPLETED; REPORT FURNISHED TO NRR AND THE PDR.

REFERENCE NUMBER: NMSS 76-2* FIN # B4127 ASSIGNED TO: SRR CONTRACTOR: SRL
 RES CONTACT: M. CULLINGFORD USER CONTACT: T. CLARK
 DATE REQUESTED: 05/01/77 RESPONSE LTR DATE: PROJECT START: 05/00/77 (PHASE I)
 DATE NEEDED: 12/00/77 USER AGREEMENT ON: PROJECT END: 12/00/77 (PHASE I)

IDENTIFICATION OF REQUEST

RISK ASSESSMENT OF FUEL REPROCESSING FACILITIES.

RA IS FOR NEED

DETERMINE RISKS AND LICENSING REQUIREMENTS OF FUEL REPROCESSING FACILITIES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

THE FIRST PHASE OF THE WORK HAS BEEN COMPLETED. THE REPORT IS NOW BEING REVIEWED AT THE SAVANNAH RIVER LABORATORY.

PHASE I CONSISTS OF IDENTIFICATION OF A REFERENCE FACILITY, SOURCES OF DESIGN AND RELIABILITY DATA AND A RISK ASSESSMENT METHODOLOGY THAT COULD BE USED IN PHASE II.

PHASE II WILL BE UNDERTAKEN DEPENDING ON RESULTS OF A REVIEW OF PHASE I. THIS REVIEW IS NOW IN PROGRESS.

* SUPERSEDED BY NMSS 78-9.

REFERENCE NUMBER: NMSS 76-3 FIN # A1192 ASSIGNED TO: SRR CONTRACTOR: SANDIA
RES CONTACT: M. COLLINGFORD USER CONTACT: F. REGNIER
DATE REQUESTED: 08/26/76 RESPONSE LTR DATE: 03/01/77 PROJECT START: 08/00/76
DATE NEEDED: 03/00/79 USER AGREEMENT ON: PROJECT END: 03/00/79
(PHASE B) (PHASE B)

IDENTIFICATION OF REQUEST

RISK ASSESSMENT METHODOLOGY DEVELOPMENT FOR HIGH LEVEL WASTE ISOLATION.

BASIS FOR NEED

NEED FOR A RISK ASSESSMENT OF THE FUEL CYCLE IN ORDER TO PROVIDE ASSISTANCE IN THE FORMULATION AND REVIEW OF LICENSING REQUIREMENTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

THE WORK IS UNDER CONTRACT WITH SANDIA. THE REFERENCE FACILITY DEFINITION, DEFINED FOR PURPOSES OF ANALYSIS ONLY, HAS BEEN COMPLETED. WORK ON MODEL INTEGRATION, AND TESTING HAS COMMENCED.

A REPORT ON PHASE A, MODEL DEVELOPMENT, HAS BEEN COMPLETED. A REPORT ON SENSITIVITY ANALYSIS METHODOLOGY IS UNDERGOING REVIEW.

DOCUMENTS ISSUED: NUREG/CR-0394, 10/78

REFERENCE NUMBER: NMSS 77-1 FIN # A0115
 A1173
 A1060
 A1193

ASSIGNED TO: SAFER

CONTRACTOR: LLL
 SANDIA

RES CONTACT: C. ROBINSON

USER CONTACT:

DATE REQUESTED: 03/02/77
 12/08/77
 02/02/78
 06/14/78

RESPONSE LTR DATE: 06/14/78

PROJECT START: 10/00/76

DATE NEEDED: 01/00/79

USER AGREEMENT ON:

PROJECT END: CONT.

IDENTIFICATION OF REQUEST

EVALUATIVE METHODS FOR FIXED SITE THEFT AND SABOTAGE PREVENTION.

BASIS FOR NEED

TO PROVIDE PERFORMANCE CRITERIA FOR PREVENTION OF THEFT AND SABOTAGE.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

A SUPPLEMENTAL REQUEST ON THIS TOPIC WAS TRANSMITTED FROM C. V. SMITH TO S. LEVINE ON AUGUST 16, 1977 AND ON DECEMBER 8, 1977. CONTRACT (FIN #A0115) IS BEING CONDUCTED IN RESPONSE TO THIS REQUEST. A CRITICAL COMMENT ON THIS PROJECT WAS RECEIVED FROM NMSS ON FEBRUARY 2, 1978.

ANOTHER SUPPLEMENTAL RESEARCH REQUEST WAS RECEIVED ON JUNE 14, 1978. COMMENTS FROM NMSS ON RES RESPONSE OFFERED ON JULY 20, 1978.

DOCUMENTS ISSUED:

A0115 - NUREG/CR-0531, 02/79
 NUREG/CR-0679, 09/78

A1060 - NUREG/CR-0293, 08/78
 NUREG/CR-0295, 08/78
 NUREG/CR-0360, 12/78
 NUREG/CR-0459, 12/78
 NUREG/CR-0475, 12/78
 NUREG/CR-0616, 12/78
 NUREG/CR-0624, 01/79
 NUREG/CR-0625, 01/79
 NUREG/CR-0694, 02/79
 NUREG/CR-0695, 03/79
 NUREG/CR-0738, 04/79
 NUREG/CR-0184, 06/77

A1173 - NUREG/CR-0228, 07/78
 NUREG/CR-0365, 09/78
 NUREG/CR-0445, 09/78
 NUREG/CR-0923, 08/79
 NUREG/CR-0924
 NUREG/CR-0925, 08/79
 NUREG/CR-0922, 08/79

RIL #93, 8/5/80
 RIL #94, 8/5/80

REFERENCE NUMBER: NMSS 77-2 FIN #

ASSIGNED TO: SAFER

CONTRACTOR: SRL/SANDIA

RES CONTACT: CULLINGFORD

USER CONTACT: J. MALARD

DATE REQUESTED: 02/28/78
06/07/78
07/20/78

RESPONSE LTR DATE: 01/10/78

PROJECT START: 05/00/78

DATE NEEDED: 05/00/79
(TASK I & II)

USER AGREEMENT ON:

PROJECT END: 05/00/79

IDENTIFICATION OF REQUEST

WASTE MANAGEMENT OF RADIOACTIVE GAS.

BASIS FOR NEED

PRELIMINARY RESULTS FROM OUR WASTE CLASSIFICATION STUDIES INDICATE THAT BOTH I-129 AND 14C, BECAUSE OF THEIR LONG HALF LIVES, WOULD, IN ALL PROBABILITY, BE UNSUITABLE FOR DISPOSAL BY SHALLOW LAND BURIAL AND WILL BE ASSIGNED TO A GEOLOGIC REPOSITORY OR SOME OTHER FACILITY CAPABLE OF PROVIDING ISOLATION FROM THE ENVIRONMENT FOR EXTENDED TIME PERIODS. SINCE THE EPA FUEL CYCLE STANDARD (40 CFR 190) WILL REQUIRE THE CAPTURING OF 85KR AND 129I BY JANUARY 1983, AND SINCE OUR PRESENT SCHEDULE FOR THE LICENSING OF THE FIRST GEOLOGIC REPOSITORY REQUIRES A SITE DEVELOPMENT PLAN REVIEW BY JANUARY 1980, IT IS NECESSARY THAT, IF THESE MATERIALS ARE DISPOSED OF BY GEOLOGIC ISOLATION AT THE FEDERAL REPOSITORY, WE DEVELOP PERFORMANCE CRITERIA FOR THE STORAGE OR DISPOSAL OF 85KR AND 129I BY JANUARY 1980.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

AT A MEETING ON OCTOBER 3, 1977, RES AGREED TO PROVIDE ONE-HALF OF THE FUNDING FOR THE FY 78 WORK IF NMSS WOULD PROVIDE THE OTHER HALF. THE COST OF THE PROJECT FOR FY78 IS \$136K. ON 01/10/78, RES OFFERED A PROGRAM PLAN AND REQUESTED NMSS TO MAKE THE \$100K AVAILABLE SO THAT WORK MAY BE STARTED. NMSS IS PRESENTLY REVISING ITS NEEDS TO REFLECT THE PRESIDENT'S VIEWS ON THIS SUBJECT. RES IS READY TO PROCEED WITH THE PROJECT.

REFERENCE NUMBER: NM55 77-3 FIN # A7028 ASSIGNED TO: SAFER CONTRACTOR: LASL
RES CONTACT: D. SOLBERG USER CONTACT: R. STAROSTECKI
DATE REQUESTED: 05/04/77 RESPONSE LTR DATE: 12/02/77 PROJECT START: 10/01/76
DATE NEEDED: USER AGREEMENT ON: 12/29/77 PROJECT END: 09/30/81

IDENTIFICATION & REQUEST

EXPERIMENTAL EVALUATION OF VENTILATION SYSTEM COMPONENTS DURING LARGE PRESSURE PULSES.

BASIS FOR NEED

TO CONFIRM THE PREDICTED PERFORMANCE OF VENTILATION SYSTEM COMPONENTS UNDER PRESSURE TRANSIENTS SIMULATING TORNADO ENVIRONMENTS AND HIGH VELOCITY FLOW RATES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

FACILITY CONSTRUCTION AND CHECKOUT FOR HEPA FILTER TESTING AND INITIAL FILTER TESTING HAVE BEEN COMPLETED.

DOCUMENTS ISSUED: NUREG/CR-0168, 07/78
 NUREG/CR-0521, 01/79

REFERENCE NUMBER: NMSS 77-4 FIN # B2270 ASSIGNED TO: SAFER CONTRACTOR: PNL
RES CONTACT: L. SANTOS USER CONTACT: W. THOMPSON
DATE REQUESTED: 05/06/77 RESPONSE LTR DATE: 04/11/78 PROJECT START: 10/01/77
DATE NEEDED: 1979 USER AGREEMENT ON: 10/03/77 PROJECT END: 05/01/80

IDENTIFICATION OF REQUEST

URANIUM MINE EXHAUST-RADON GAS

BASIS FOR NEED

TO OBTAIN MORE DATA AND PROVIDE A BETTER ESTIMATE OF ENVIRONMENTAL IMPACTS FOR INCLUSION IN A REVISED TABLE 5-3, "SUMMARY OF ENVIRONMENTAL CONSIDERATIONS FOR URANIUM FUEL CYCLE" UNDER 10 CFR PART 51. WHEN TABLE 5-3 WAS ORIGINALLY PUBLISHED, THE RADON GASEOUS EFFLUENCE FROM MINING WAS NOT REPORTED. SUBSEQUENTLY, GESMO STUDIES SHOWED THAT THE RADON EFFLUENCE MAY BE IMPORTANT.

STATUS OF PROCESSING REQUEST FOR RESEARCH

RESEARCH HAS BEEN COMPLETED.

COMMENTS

CONTRACT WITH PNL INITIATED AUG 77.

USER OFFICE AGREEMENT WITH THE REFERENCE OF 09/21/77 WAS RECEIVED ON 10/03/77. HOWEVER, THE LETTER OF AGREEMENT ALSO POINTED OUT THAT ADDITIONAL INFORMATION IS REQUIRED ON THE RELEASE OF RADON FROM OPEN PIT MINES AS WELL AS UNDERGROUND MINES, WHICH IS COVERED ADEQUATELY IN THE PRESENT CONTRACT WITH PNL. AN OPEN PIT MEASUREMENT PROJECT HAS BEEN FORMULATED AND USER OFFICE AGREEMENT WITH THIS NEW TASK WAS REQUESTED ON APRIL 11, 1978.

DOCUMENTS ISSUED: NUREG/CR-0627, 03/79; NUREG/CR-1273, 2/80

REFERENCE NUMBER: NMSS 77-5* FIN # B4127 ASSIGNED TO: SRR CONTRACTOR: SRL

RES CONTACT: M. CULLINGFORD USER CONTACT: A. CLARK

DATE REQUESTED: 05/13/77 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: USER AGREEMENT ON: 05/13/77 PROJECT END:

IDENTIFICATION OF REQUEST

RISK ASSESSMENT OF FUEL CYCLE FACILITIES

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED (REQUEST FOLLOWED INITIATION OF WORK).

COMMENTS

STATEMENT OF AGREEMENT WITH ON-GOING WORK AS BEING RESPONSIVE TO REQUEST IS INCLUDED IN THE REQUEST LETTER.

* THIS PROJECT IS PHASE II OF RESEARCH REQUEST NMSS 76-2.

SUPERSEDED BY NMSS 78-3.

REFERENCE NUMBER: SHSS 77-6 FIN # B0409 ASSIGNED TO: SAFER CONTRACTO: ORNL
RES CONTACT: D. SOLBERG USER CONTACT: R. ODGEGAARDEJN
DATE REQUESTED: 05/18/77 RESPONSE LTR DATE: 08/15/77 PROJECT START: 07/01/77
DATE NEEDED: ASAP USER AGREEMENT ON: PROJECT END: 09/30/79

IDENTIFICATION OF REQUEST

REVIEW OF CRITICAL EXPERIMENTS

BASIS FOR NEED

REVIEW OF THE ON-GOING CRITICAL EXPERIMENTS AT LATTLE AND ROCKY FLATS AS WELL AS OTHER CRITICAL EXPERIMENTS COORDINATED WITH SCALE CODE DEVELOPMENT OF THE UTILITY OF THE EXPERIMENTAL DATA TO NRC'S CALCULATIONAL NEEDS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

REFERENCE NUMBER: NMSS 77-7 FIN # B6008 ASSIGNED TO: SAFER CONTRACTOR: USNY
B2275 PNL
B7066 USGS

RES CONTACT: E. HELD

USER CONTACT: C. J. HAUGHNEY

DATE REQUESTED: 05/17/77 RESPONSE LTR DATE: 12/13/77 PROJECT START: 09/00/77
01/10/79 05/02/79
08/00/80

DATE NEEDED: EARLY '78 USER AGREEMENT ON: 01/23/78 PROJECT END: 09/00/78
(PART I)

IDENTIFICATION OF REQUEST

WEST VALLEY WASTE BURIAL AND STORAGE FACILITIES.

BASIS FOR NEED

TO PROVIDE A PART OF THE DATA BASE NEEDED TO SUPPORT DEVELOPMENT OF STANDARDS AND CRITERIA FOR SHALLOW LAND BURIAL OF LOW-LEVEL WASTES. TO OBTAIN DATA AND INFORMATION ON BURIAL ESTIMATES AT THE WEST VALLEY, N.Y. RADIOACTIVE WASTE BURIAL GROUND.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

DOCUMENTS ISSUED:

B2275 - NUREG/CR-0576
B6008 - NUREG/CR-0644, 04/79

REFERENCE NUMBER: NMSS 77-8 FIN # A0124 ASSIGNED TO: SAFER CONTRACTOR: LLL

RES CONTACT: W. MURPHY

USER CONTACT:

DATE REQUESTED: 06/10/77 RESPONSE LTR DATE: PROJECT START: 08/01/77

DATE NEEDED: 12/00/79 USER AGREEMENT ON: PROJECT END: 07/31/79

IDENTIFICATION OF REQUEST

AUTOMATED CONTENT ANALYSIS AND ITS APPLICATION TO NUCLEAR THREAT ASSESSMENT/
PSYCHOLINGUISTIC THREAT ASSESSMENT

BASIS FOR NEED

TO CONTRIBUTE TO A REAL TIME CAPABILITY TO SUPPORT CRISIS MANAGEMENT ACTIONS DURING THE PERPETRATION OF MALEVALENT ACTS AGAINST NUCLEAR FACILITIES AND TO SUPPORT ASSESSMENT OF NUCLEAR EXTORTION THREATS BY THE USE OF PSYCHOLINGUISTICS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

FOLLOW-ON TO THIS PROJECT IS FUNDED UNDER FIN #A0123, COMMUNICATED THREAT ASSESSMENT.

REFERENCE NUMBER: NMSS 77-9 FIN # A7057 ASSIGNED TO: SAFER CONTRACTOR: LASL
B0419 ORNL

RES CONTACT: D. SOLBERG

USER CONTACT: R. STEVENSON

DATE REQUESTED: 06/17/77 RESPONSE LTR DATE: 06/30/78 PROJECT START: 08/15/78
02/01/78 04/01/78

DATE NEEDED: MID 1980 USER AGREEMENT ON: 07/20/78 PROJECT END: 09/30/80
03/01/78 09/30/80

IDENTIFICATION OF REQUEST

DEVELOP GUIDE FOR ADMINISTRATIVE CONTROLS APPLICABLE TO NUCLEAR CRITICALITY SAFETY; NUCLEAR CRITICALITY SAFETY DATA AND METHODS OF ANALYSIS FOR FUEL PROCESSING OPERATIONS.

BASIS FOR NEED

THERE IS A NEED TO DEVELOP METHODS AND GUIDANCE FOR DETERMINATION OF NUCLEAR CRITICALITY SAFETY APPLICABLE TO LWR FUEL FABRICATION, BUT WITH RECOGNITION THAT NRC ALSO LICENSES THE NAVY FUEL (HIGH ENRICHED URANIUM) FABRICATION PLANTS, THE PLANT FOR FABRICATION OF HTGR FUEL, AND PLANTS FABRICATING FUEL FOR RESEARCH REACTORS.

PROJECTS 1 AND 2 WILL PROVIDE A MUCH IMPROVED BASIS FOR OUR ACCEPTANCE OF TWO WIDELY USED "HAND CALCULATION METHODS" OF NEUTRON INTERACTION ANALYSIS, A MORE SPECIFIC KNOWLEDGE OF SAFETY MARGINS AND CONDITIONS ALLOWED FOR IN THEIR USE, AND ENCOURAGE A UNIFORM APPROACH THROUGHOUT INDUSTRY VIA STANDARDIZATION. PROJECTS 3 AND 4 ARE INTENDED TO FORESTALL POSSIBLE DIFFICULTIES ARISING FROM BROADENED USE OF COMPUTER CODES BY LICENSEES IN SOLVING SPECIAL UNIT GEOMETRIES OR CONTROLS. PROJECT 5 SHOULD ENHANCE SAFETY BY MAKING AVAILABLE, IN A SINGLE SOURCE, NUCLEAR CRITICALITY DATA OF ESTABLISHED VALIDITY AND APPLICABILITY TO LICENSEE OPERATIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

PROJECTS 1, 2, AND 4 ARE IN PROGRESS AND WILL BE COMPLETED BY 09/30/80. PROJECTS 3 AND 5 WILL BE PROVIDED IN PART BY SCALE CODE DEVELOPMENT. FURTHER FUNDING FOR PROJECTS 3 AND 5 ARE NOT CURRENTLY AVAILABLE.

COMMENTS

REFERENCE NUMBER: NMSS 77-10 FIN # A1059 ASSIGNED TO: SAFER CONTRACTOR: SANDIA

RES CONTACT: W. LAHS

USER CONTACT: C. MCDONALD

DATE REQUESTED: 12/22/75 RESPONSE LTR DATE: 05/21/76 PROJECT START: 08/31/76
07/22/77
08/02/77

DATE NEEDED: 09/06/77 USER AGREEMENT ON: PROJECT END: 04/28/78

IDENTIFICATION OF REQUEST

PLUTONIUM PACKAGE CERTIFICATION PROGRAM

BASIS FOR NEED

RESPONSE TO PUBLIC LAW 94-79.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

PROJECT INITIATED BEFORE ENDORSEMENT PROCESS IN EFFECT.

DOCUMENTS ISSUED: NUREG/CR-0030

REFERENCE NUMBER: NMSS 77-11 FIN # A2046-7 ASSIGNED TO: SAFER CONTRACTOR: ANL
B2269-8 PNL

RES CONTACT: L. SANTOS

USER CONTACT: H. MILLER

DATE REQUESTED: 08/31/77 RESPONSE LTR DATE: 11/21/77 PROJECT START: 04/01/76
10/01/77

DATE NEEDED: USER AGREEMENT ON: 12/08/77 PROJECT END: 09/30/80
09/30/82

IDENTIFICATION OF REQUEST

DEVELOP AND CONFIRM DATA FOR PREDICTING RADON-222 EXHALATION FROM URANIUM MILL TAILINGS/ A) URANIUM MILL TAILINGS; B) ATTENUATION; OF RADON EXHALATION FROM URANIUM MILL TAILINGS

BASIS FOR NEED

THE REQUESTED RESEARCH IS NEEDED BY NMSS:

- (A) IN ASSESSING THE ADEQUACY AND EFFECTIVENESS OF TAILINGS RECLAMATION AND DISPOSAL PLANS SUBMITTED BY URANIUM MILL OPERATORS FOR REDUCING RADON-222 EXHALATION FROM TAILINGS.
- (B) IN DEFINING RADON-222 SOURCE TERMS FOR USE IN BOTH THE GENERIC STATEMENT ON URANIUM MILLING AND IN THE UPDATE OF THE URANIUM FUEL CYCLE ENVIRONMENTAL SURVEY (TABLE S-3).
- (C) IN THE DEVELOPMENT OF CRITERIA AND STANDARDS FOR MILL TAILINGS WASTE MANAGEMENT.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

DOCUMENTS ISSUED:

A2046 - NUREG/CR-0758, 04/79
NUREG/CR-1412, 05/80
NUREG/CR-1081, 03/80
NUREG/CR-1320, 02/80
NUREG/CR-1216, 12/79
NUREG/CR-1133, 11/79
NUREG/CR-0553, 05/79

B2269 - NUREG/CR-1138, 11/79

REFERENCE NUMBER: NMSS 77-12 FIN # A3044 ASSIGNED TO: SAFER CONTRACTOR: BNL

RES CONTACT: J. DURST

USER CONTACT:

DATE REQUESTED: 09/19/77 RESPONSE LTR DATE: 09/17/77 PROJECT START: 05/31/77

DATE NEEDED: USER AGREEMENT ON: 10/04/77 PROJECT END: 06/30/80

IDENTIFICATION OF REQUEST

CONSEQUENCES ESTIMATION STUDY/CONSEQUENCE ESTIMATION

BASIS FOR NEED

THE STUDY IS NEEDED TO PROVIDE NMSS WITH SOURCE TERMS WHICH WILL PROVIDE BASES FOR EITHER CONFIRMING PRESENT SAFEGUARDS EMPHASIS ON SN, SABOTAGE OF A REACTOR, FUEL REPROCESSING FACILITY, OR FUEL FABRICATION FACILITY - OR PROVIDE A RATIONAL BASIS UPON WHICH TO CHANGE THOSE EMPHASIS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

THIS RESEARCH IS COMPLETED AND THE FINAL REPORT WILL BE ISSUED IN THE THIRD QUARTER, FY-80.

REFERENCE NUMBER: NMSS 77-13 FIH # A2046 ASSIGNED TO: SAFER CONTRACTOR: ANL
B2095 PNL
A3043 BNL

RES CONTACT: L. SANTOS USER CONTACT: H. MILLER

DATE REQUESTED: 11/02/77 RESPONSE LTR DATE: 12/09/77 PROJECT START: 04/01/76
10/01/77
07/01/76

DATE AWARDED: USER AGREEMENT ON: 01/18/78 PROJECT END: 09/30/80
09/30/80
12/31/76

IDENTIFICATION OF REQUEST

EFFLUENT AND ENVIRONMENTAL MONITORING RESEARCH STUDIES AT OPERATING URANIUM MILLS/ A) URANIUM MILL TAILINGS; B) RESUSPENSION CHARACTERIZATION; C) EVALUATION METHOD ASSESSMENT

BASIS FOR NEED

TO SUPPORT NMSS STAFF IN THE FOLLOWING ACTIVITIES:

- (1) CARRYING OUT RADIOLOGICAL ASSESSMENTS FOR URANIUM MILLS FOR USE IN BOTH THE GENERIC ENVIRONMENTAL IMPACT STATEMENTS ON URANIUM MILLING AND FOR INDIVIDUAL MILL STATEMENTS.
- (2) DEVELOPING GUIDANCE ON EFFLUENT AND ENVIRONMENTAL MONITORING PROGRAMS FOR URANIUM MILLS.
- (3) IDENTIFYING ANY POTENTIAL PROBLEMS FOR URANIUM MILLS IN COMPLYING WITH EPA'S URANIUM FUEL CYCLE STANDARDS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

DOCUMENTS ISSUED:

A2046 - NUREG/CR-0483	B2095 - NUREG-0629, 04/79
NUREG/CR-0758, 04/79	NUREG-1407, 05/80
NUREG/CR-1412, 05/80	
NUREG/CR-1081, 03/80	
NUREG/CR-1320, 02/80	
NUREG/CR-1216, 12/79	
NUREG/CR-1133, 11/79	
NUREG/CR-0553, 05/79	

REFERENCE NUMBER: NMSS 77-14 FIN # B6172 ASSIGNED TO: SAFER CONTRACTOR: ORNL

RES CONTACT: W. LAHS

USER CONTACT: R. ODEGAARDEN

DATE REQUESTED: 11/03/77 RESPONSE LTR DATE: 11/03/77 PROJECT START: 06/00/76

DATE NEEDED: USER AGREEMENT ON: 11/07/77 PROJECT END: 09/80

IDENTIFICATION OF REQUEST

STANDARDIZED ANALYSIS OF FUEL SHIPPING CONTAINERS.

BASIS FOR NEED

THERE IS A NEED FOR RESEARCH TO DEVELOP A UNIFIED, STATE-OF-THE-ART, USER ORIENTED, COMPUTER PROGRAM CAPABLE OF ROUTINELY PERFORMING LICENSING EVALUATIONS OF SPENT FUEL SHIPPING CASKS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

RES GENERATED USER NEED IN COOPERATION WITH NMSS STAFF.

DOCUMENTS ISSUED:

PARTIAL DRAFT NUREG/CR-0200 HAS BEEN MADE AVAILABLE TO NMSS.
INSTRUCTION ON PROGRAM USE ALSO PROVIDED.

REFERENCE NUMBER: NMSS 77-15* FIG. # 82093 ASSIGNED TO: SAUER CONTRACTOR: PNL
RES CONTACT: W. LAHS USER CONTACT: W. LAKE, D. HOPKINS
DATE REQUESTED: 11/08/77 RESPONSE LTR DATE: 11/08/77 PROJECT START: 06/00/76
DATE NEEDED: USER AGREEMENT ON: 11/25/77 PROJECT END: 06/80

IDENTIFICATION OF REQUEST

PLUTONIUM OXIDE LEAK RATES FROM SHIPPING CONTAINERS.

BASIS FOR NEED

THE NEED TO EVALUATE POSSIBLE LEAKAGE OF RADIOACTIVE MATERIAL FROM CONTAINERS DURING SHIPMENT REQUIRES A METHOD OF TESTING AND MEASURING LEAKAGE AND OF CORRELATING TEST RESULTS WITH ACTUAL SHIPMENT CONDITIONS. MANY OF THE RADIOACTIVE SHIPMENTS ARE IN THE FORM OF A POWDER OR SLURRY WHICH ARE NOT SUSCEPTIBLE TO MEASUREMENT AT THE VERY LOW LEAK RATES INVOLVED. ALTHOUGH DIRECTED PRINCIPALLY TO THE LEAKAGE OF GASES OR LIQUIDS, ANSI N14.5* STATES THAT LEAKAGE OF PARTICULATES (SLURRIES OR POWDERS) CAN BE CONSERVATIVELY ASSESSED BY ASSUMING THESE MATERIALS BEHAVE AS WATER. THE USE OF WATER AS A SURROGATE TEST MATERIAL IS NOT PRACTICAL FOR THESE LOW LEAK RATES AND THE USE OF GASES WITHOUT FURTHER DEVELOPMENT OF CORRELATION METHODS RESULTS IN GROSS OVERESTIMATION OF LEAK RATES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

RES INITIATED REQUEST/RESPONSE LETTER WITH ASSISTANCE FROM NMSS.

DOCUMENTS ISSUED:

NUREG/CR-1099
NUREG/CR-0958

*SEE SD 77-13.

REFERENCE NUMBER: NM55 77-16 FIN # B5959
A3027 ASSIGNED TO: SAFER CONTRACTOR: U. MC.

RES CONTACT: C. BARTLETT

USER CONTACT:

DATE REQUESTED: 11/22/77 RESPONSE LTR DATE: 11/22/77 PROJECT START: 06/00/76

DATE NEEDED: USER AGREEMENT ON: 12/13/77 PROJECT END:

IDENTIFICATION OF REQUEST

LOW LEVEL WASTE MANAGEMENT RESEARCH.

BASIS FOR NEED

THERE IS A NEED TO DEVELOP DATA ON THE TYPES, QUANTITIES AND ACTIVITY LEVELS OF A WIDE VARIETY OF RADIOACTIVE WASTES. VERIFIED INDEPENDENT DATA ARE ALSO LACKING ON THE LONG TERM STABILITY OF SUCH WASTES OR THEIR POTENTIAL INTERACTION WITH THEIR CONTAINERS OR THE DISPOSAL ENVIRONMENT. THESE DATA ARE REQUIRED TO SUPPORT THE ESTABLISHMENT OF NRC PERFORMANCE STANDARDS FOR LOW LEVEL WASTE FORMS AND PACKAGES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

DOCUMENTS ISSUED:

A3027 - NUREG/CR-0667, 11/78

REFERENCE NUMBER: NMSS 77-17 FIN # 82292 ASSIGNED TO: SAFER CONTRACTOR: PNL

RES CONTACT: L. SANTOS USER CONTACT: H. MILLER

DATE REQUESTED: 11/23/77 RESPONSE LTR DATE: 01/31/79 PROJECT START: 06/79

DATE NEEDED: USER AGREEMENT ON: 02/23/79 PROJECT END: 09/30/83

IDENTIFICATION OF REQUEST

GROUND WATER IMPACTS OF URANIUM MILLING

BASIS FOR NEED

TAILINGS SEEPAGE AND GROUND WATER PROBLEMS ARE VERY DIFFICULT TO DESCRIBE PRECISELY BECAUSE SOIL/GEOLOGIC STRUCTURES AND ASSOCIATED PROPERTIES ARE VERY COMPLEX. BECAUSE OF THE NON-UNIFORMITY OF THE SOIL AND GEOLOGY, EXACT DETERMINATION OF GROUND WATER IMPACT HAS BEEN DIFFICULT. HOWEVER, IN EACH LICENSING CASE SOME PREDICTIONS MUST BE MADE ABOUT POTENTIAL IMPACTS ON GROUND WATER ESPECIALLY AS RELATED TO DRINKING WATER SOURCES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 77-18 FIN # B2094 ASSIGNED TO: SAFER CONTRACTOR: PNL
B2075 ANL
A1036 RI, AI

RES CONTACT: D. SOLBERG

USER CONTACT:

DATE REQUESTED: 11/23/77 RESPONSE LTR DATE: 11/23/77 PROJECT START: 10/01/77
03/03/76
10/01/77

DATE NEEDED: USER AGREEMENT ON: 11/30/77 PROJECT END: 09/30/80
08/31/79
09/30/80

IDENTIFICATION OF REQUEST

CRITICALITY SAFETY RESEARCH/ A) EXPERIMENTAL CRITICALITY FOR CODE VALIDATION; B) INTEGRAL DATA EVALUATION; C) REFERENCE CRITICAL EXPERIMENTS.

BASIS FOR NEED

NEED FOR (1) BENCHMARK CROSS SECTION DATA APPLICABLE TO THE CRITICALITY SAFETY ANALYSIS OF SPENT FUEL STORAGE AND TRANSPORTATION SYSTEMS AND (2) CRITICALITY EXPERIMENTS ON LOW PU CONTENT, MIXED OXIDE FUELS UNDER CONDITIONS OF NON-OPTIMUM MODERATION.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

THIS RESEARCH NEED WAS FORMALIZED IN A LETTER FROM S. LEVINE TO C. V. SMITH, NOV. 22, 1977, BASED ON PREVIOUS COMMUNICATION FROM H. LARSON, NMSS, TO H. KOITS, RES. MAY 13, 1975.

DOCUMENTS ISSUED:

A1036 - NUREG/CR-0674
NUREG/CR-0041

B2075 - NUREG/CR-0965

B2094 - PNL-2438
NUREG/CR-0796

REFERENCE NUMBER: NMSS 77-19 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: J. DAVIS

USER CONTACT:

DATE REQUESTED: 12/21/77 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED: USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

SOIL-PLANT UPTAKE OF NUCLIDES

BASIS FOR NEED

TO PROVIDE NEAR-TERM LICENSING DECISIONS, FORMULATION OF REGULATIONS, AND DEVELOPMENT OF GUIDES AND STANDARDS CONCERNING LOW LEVEL WASTE MANAGEMENT OF COMMERCIALY OPERATED DISPOSAL SITES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 77-20* FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: C. JUPITER

USER CONTACT: L. HARTUNG/E. HAWKINS

DATE REQUESTED: 11/23/77 RESPONSE LTR DATE: 02/22/78 PROJECT START:
07/15/80

DATE NEEDED: USER AGREEMENT ON: 03/14/78 PROJECT END:

IDENTIFICATION OF REQUEST

DEVELOPMENT OF A DATA BASE TO SUPPORT FUTURE STANDARDS AND CRITERIA FOR SHALLOW LAND
BURIAL OF LOW-LEVEL WASTES
TASKS A, B, AND C - SEE NMSS 78-2. TASK D - ASSESSMENT OF GEOTECHNICAL AND RADIATION
INSTRUMENTS AND METHODS FOR LOW-LEVEL WASTE REPOSITORY SITE EVALUATION.
BASIS FOR NEED

THESE STUDIES ARE ESSENTIAL TO THE DEVELOPMENT OF A COMPREHENSIVE DATA BASE WHICH THE
NMSS STAFF WILL NEED TO ESTABLISH STANDARDS AND CRITERIA FOR THE LICENSING OF FUTURE
SHALLOW LAND BURIAL SITES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

*SUPERSEDED BY NMSS 80-10

REFERENCE NUMBER: NMSS 77-1 FIN # A1060 ASSIGNED TO: SAFER CONTRACTOR: SANDIA

RES CONTACT: R. ROBINSON

USER CONTACT:

DATE REQUESTED: 11/10/78 RESPONSE LTR DATE: 01/10/78 PROJECT START:

DATE NEEDED: USER AGREEMENT ON: 03/06/78 PROJECT END:

IDENTIFICATION OF REQUEST

DEVELOP AND IMPROVE STRUCTURAL ANALYSIS METHODS FOR SHIPPING CONTAINERS.

BASIS FOR NEED

(1) TO OBTAIN A BETTER DEFINITION OF THE MARGINS OF SAFETY IN ANALYTICAL METHODS CURRENTLY USED TO EVALUATE PACKAGE STRUCTURAL RESPONSE.

(2) TO DEVELOP MORE PRECISE ANALYTICAL METHODS CAPABLE OF RELATING PACKAGE STRUCTURAL RESPONSE TO THE MATERIAL LOSS SPECIFICATIONS OF NRC REGULATIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED. USER OFFICE AGREEMENT RECEIVED 03/06/78.

COMMENTS

DOCUMENTS ISSUED:

A1060 - NUREG/CR-0725, 03/79
 NUREG/CR-0738, 04/79
 NUREG/CR-0751, 04/79
 NUREG/CR-0898, 07/79
 NUREG/CR-0928, 08/79
 NUREG/CR-0960, 08/79

REFERENCE NUMBERS: NMSS 78-2* FIN #
 B6626
 B6338
 B6623
 B6340
 B6625
 B6361
 B6352
 B6624
 B6330
 B6661
 B3040

ASSIGNED TO: SAFER CONTRACTOR:
 CORN. U.
 GA TECH.
 HARVARD
 IOWA ST.
 SJ ST.
 STANFORD
 U. OF FLA.
 U. TOLEDO
 CATH. U.

RES CONTACT: G. BIRCHARD/C. JUPIER
 K. S. KIM

USER CONTACT: WHITE/ROBBINS/E. HAWKINS
 M. BELL

DATE REQUESTED: 01/30/78 RESPONSE LTR DATE: 08/28/78 PROJECT START: 06/01/78 (B6330)
 06/23/80 (B6352)
 07/15/80 (B6338)
 07/16/80 (B6341)
 09/01/78 (B6340)
 08/2 -78 (B6625)
 07/01/78 (B6623)
 07/01/78 (B6626)
 09/01/78 (B6624)

DATE NEEDED: USER AGREEMENT ON: 04/04/79 PROJECT END: 06/30/81 (B6626)
 07/31/80 (B6338)
 12/31/80 (B6623)
 09/30/81 (B6340)
 06/30/80 (B6625)
 06/30/80 (B6341)
 12/31/82 (B6352)
 08/30/80 (B6624)
 12/31/80 (B6330)

IDENTIFICATION OF REQUEST

OBTAIN FACTS AND CONFIRMATORY MEASUREMENTS FOR STANDARDS AND LICENSING OF HIGH-LEVEL AND TRANSURANIC WASTE DISPOSAL

- TASK A - CRITICAL REVIEW OF NON-INVASIVE ELECTROMAGNETIC AND SEISMIC MEASUREMENT FOR HIGH LEVEL WASTE.
- TASK B - EVALUATION OF HIGH RESOLUTION ELECTROMAGNETIC AND SEISMIC GEOPHYSICAL METHODS
- TASK C - QUALITY ASSURANCE FOR CRITICAL INSTRUMENTATION

- 1) GEOCHEMICAL ASSESSMENT OF NUCLEAR WASTE ISOLATION (B3040)
- 2) RADIONUCLIDE MIGRATION AROUND URANIUM ORE BODIES: ANALOGUE OF RADIO WASTE REPOSITORIES. (B6661)
- 3) THERMAL CONDUCTIVITY OF ROCK. (B6626)
- 4) HLW PARTICULATE MIGRATION (B6338)
- 5) REPOSITORY OPTIONS ASSESSMENT (B6623)
- 6) THERMAL STRESS (B6340)
- 7) CONTAINER - ROCK INTERACTION (B6625)
- 8) INADVERTENT REPOSITORIES (B6341)

IDENTIFICATION OF REQUEST (CONTINUED)

- 9) SURFACE PROPERTIES; ENCAPSULANT (B6352)
- 10) CRYSTALLINE - MULTI BARRIER (B6624)
- 11) RADWASTE GLASS AND CERAMIC (B6330)

BASIS FOR NEED

TO PROVIDE FOR A DEVELOPMENT OF AN EMPIRICAL BASE OF INFORMATION NEEDED TO DEVELOP AND SUPPORT REGULATIONS (AND GUIDES), TO LICENSE, AND TO ENSURE THAT WASTE REPOSITORIES CAN BE INSPECTED FOR COMPLIANCES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

*SUPERSEDED BY NMSS 80-10

REFERENCE NUMBER: NMSS 78-3 FIN # A1031 ASSIGNED TO: SAFER CONTRACTOR: LVLCE

RES CONTACT: J. FOULKE USER CONTACT: R. NEEL

DATE REQUESTED: 02/01/78 RESPONSE LTR DATE: PROJECT START: 06/24/75

DATE NEEDED: USER AGREEMENT ON: 02/01/78 PROJECT END: CONTINUING

IDENTIFICATION OF REQUEST

RADIATION EXPOSURE AND RISK ESTIMATES FOR INHALED AIRBORNE RADIOACTIVE POLLUTANTS

BASIS FOR NEED

NMSS NEEDS A CAPABILITY TO PERFORM MORE REALISTIC ASSESSMENTS OF RISK ASSOCIATED WITH RADIOACTIVE MATERIAL DISCHARGES. PRESENT ASSESSMENTS ARE BASED ON EXTREMELY CONSERVATIVE MODELS. A MORE REALISTIC BASIS FOR MAKING SUCH ASSESSMENTS IS DESIRED..

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

THE REQUEST FOR RESEARCH CONSTITUTED AN ENDORSEMENT OF AN ON-GOING PROJECT.

REFERENCE NUMBER: NMSS 78-4 FIN # A1045 ASSIGNED TO: SAFER CONTRACTOR: SANDIA
RES. CONTACT: W. LAHS USER CONTACT: C. CHAPPELL
DATE REQUEST'D: 02/15/78 RESPONSE LTR DATE: 02/15/78 PROJECT START: 02/24/77
DATE NEEDED: USER AGREEMENT ON: PROJECT END: 06/80

IDENTIFICATION OF REQUEST

STRUCTURAL TECHNOLOGY PROGRAM.

BASIS FOR NEED

TO PROVIDE NRC WITH A GENERAL PURPOSE COMPUTER CODE MODIFIED TO EXPEDITIOUSLY PERFORM STRUCTURAL ANALYSIS OF SHIPPING CONTAINERS AND TO COMPARE ADEQUACY OF VARIOUS METHODS OF ANALYZING CONTAINER RESPONSE TO THE 10 CFR 71 PERFORMANCE STANDARDS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

FORMULATED PROJECT WAS DESCRIBED IN 02/15/78 LETTER FROM S. LEVINE TO C.V. SMITH.

LETTER FROM C.V. SMITH TO S. LEVINE, ON 03/14/78 TERMINATED ENDORSEMENT OF THE PROGRAM.

COMMENTS

PROJECT INITIATED BEFORE USER ENDORSEMENT PROCESS APPLICABLE.

DOCUMENTS ISSUED:

SAND 76-0633, SAND 77-0783, NUREG-6514, SAND 77-0618.

REFERENCE NUMBER: NMSS 78-5 FIN # A1173 ASSIGNED TO: SAFER CONTRACTOR: SANDIA
 RES CONTACT: R. ROBINSON USER CONTACT: A. GIARRATANA
 DATE REQUESTED: 03/28/78 RESPONSE LTR DATE: 08/17/79 PROJECT START:
 DATE NEEDED: N/A USER AGREEMENT ON: 09/28/79 PROJECT END: CONTINUOUS

IDENTIFICATION OF REQUEST

EFFECTIVENESS EVALUATION METHODS FOR TRANSPORTATION PHYSICAL PROTECTION

BASIS FOR NEED

PROVIDE QUANTITATIVE METHODS FOR EVALUATING THE OVERALL EFFECTIVENESS OF THEFT AND SABOTAGE PREVENTION SYSTEMS ASSOCIATED WITH MATERIALS IN TRANSIT.

STATUS OF PROCESSING REQUEST FOR RESEARCH

PRODUCTS EXPECTED:

- 1) EARS COMMUNICATION MODEL (1979)
- 2) UPGRADE RULE EVALUATIVE METHODOLOGY (1979)
- 3) SABRES II MODEL - DOCUMENTATION AND PUBLICATION OF RESULTS (1979)
- 4) COMPLETE 'EARS' COMMUNICATION MODEL (1980)

COMMENTS

DOCUMENTS ISSUED:

NUREG/CR-0228,	07/78	NUREG/CR-1255,	03/80
NUREG/CR-0365,	09/78	NUREG/CR-1178,	03/80
NUREG/CR-0465,	09/78	NUREG/CR-0364,	04/80
NUREG/CR-0923,	08/79	NUREG/CR-0100,	06/78
NUREG/CR-0924,	08/79	NUREG/CR-0099,	06/78
NUREG/CR-0925,	08/79	NUREG/CR-0101,	06/78
NUREG/CR-0922,	08/79	NUREG/CR-0641,	01/79
NUREG/CR-0921,	09/79	SAND 76-0559,	02/77
NUREG/CR-0919,	12/79	SAND 77-8625,	07/77
NUREG/CR-1262,	03/80	SAND 77-8624,	07/77
NUREG/CR-0929,	03/80	SAND 77-8626,	07/77

REFERENCE NUMBER: NMSS 78-6 FIN # B6631 ASSIGNED TO: SAFER CONTRACTOR:
RES CONTACT: SWANBERG USER CONTACT: L. ROUSE, NMSS/R. ALEXANDER, OSD
DATE REQUESTED: 06/07/78 RESPONSE LTR DATE: 10/26/79 PROJECT START:
DATE NEEDED: 1981 USER AGREEMENT ON: * PROJECT END:

IDENTIFICATION OF REQUEST

RESEARCH STUDIES TO BETTER DEFINE METABOLIC BEHAVIOR OF URANIUM COMPOUNDS AND MATERIALS

BASIS FOR NEED

IT IS ESSENTIAL THAT NMSS IMPROVES ITS KNOWLEDGE OF METABOLIC BEHAVIOR OF URANIUM COMPOUNDS & MATERIALS IN ORDER TO PROVIDE GREATER CREDIBILITY TO ITS DOSE CALCULATIONS. THESE DOSE ASSESSMENTS WILL BE USED TO DEMONSTRATE COMPLIANCE WITH APPLICABLE RADIATION STANDARDS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

*NMSS ENDORSEMENT ONLY THROUGH FY-79 (SEPTEMBER 30, 1979)

REFERENCE NUMBER: NMSS 78-7 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: E. RICHARD

USER CONTACT: A. C. GIARRATANA

DATE REQUESTED: 07/18/78 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON: N/A

PROJECT END:

IDENTIFICATION OF REQUEST

SSNM USE DENIAL TECHNIQUES.

BASIS FOR NEED

A REQUIREMENT EXISTS FOR INVESTIGATING THE TECHNOLOGICAL FEASIBILITY AND SAFEGUARDS BENEFITS (IMPACTS) TO BE DERIVED FROM APPLYING THERMITE SSNM USE-DENIAL TECHNOLOGY TO LICENSEE ACTIVITIES INVOLVING TRANSPORT OF SENSITIVE QUANTITIES OF SSNM. SUPPORT IS REQUIRED FOR:

- 1) AN ASSESSMENT OF SAFEGUARDS IMPACTS
- 2) ENVIRONMENTAL AND SAFETY ASSESSMENTS
- 3) COST BENEFIT ASSESSMENT
- 4) PROVIDE A BASIS FOR REGULATORY DESIGN

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

PROJECT WAS NOT INITIATED DUE TO LACK OF FY 1980 FUNDS. REQUEST REMAINS VALID, BUT LACK OF FUNDS MAY PREVENT FUNDING IN FY 1981 ALSO.

REFERENCE NUMBER: NMSS 78-9 FIN # B0425 ASSIGNED TO: CONTRACTOR: ORNL
A7029
B2287
LASL
PHL

RES_CONTACT: G. LEWIS

USER_CONTACT:

DATE REQUESTED: 06/16/77 RESPONSE LTR DATE: 11/22/78 PROJECT START: 05/01/79
05/01/79
05/01/79

DATE NEEDED: USER AGREEMENT ON: 03/12/79 PROJECT END: 09/30/83
09/30/83
09/30/83

IDENTIFICATION OF REQUEST

ACCIDENT SOURCE TERM DETERMINATION AND ANALYSIS
A) DEFINITION OF PARAMETERS FOR MAJOR ACCIDENTS AT WASTE SOLIDIFICATION AND SPENT FUEL STORAGE FACILITIES; B) ACCIDENT INDUCED FLOW AND MATERIAL TRANSPORT IN NUCLEAR FACILITIES; C) AEROSOL RELEASE OF RADIOACTIVE MATERIALS FROM FUEL CYCLE FACILITY ACCIDENTS.

BASIS FOR NEED

TO PROVIDE NRC WITH AN IMPROVED BASIS FOR EVALUATING THE CONSEQUENCES OF MAJOR ACCIDENTS IN FUEL CYCLE FACILITIES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETE PROJECT UNDERWAY

COMMENTS

REFERENCE NUMBER: NMSS 78-10 FIN # B6012 ASSIGNED TO: SAFER CONTRACTOR: BNL
B6710

RES CONTACT: W. LAHS

USER CONTACT:

DATE REQUESTED: 10/26/78 RESPONSE LTR DATE: 04/15/79 PROJECT START: 05/79

DATE NEEDED: USER AGREEMENT ON: 05/07/79 PROJECT END: 09/81

IDENTIFICATION OF REQUEST

FISSION PRODUCT RELEASE - SPENT FUEL CASK SABOTAGE

BASIS FOR NEED

SUPPORT FORMULATION OF POLICY CONCERNING SAFEGUARDING SHIPMENTS OF SPENT LWR FUEL.
PROVIDE DATA TO ASSESS THE CHEMICAL/PHYSICAL FORM OF ANY RADIOLOGICAL SOURCE TERM
WHICH COULD RESULT FROM SPECIFIED EXPLOSIVE ATTACKS ON LWR SPENT FUEL SHIPPING CASKS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

SOURCE SELECTION PANEL REVIEWING PROPOSALS FOR B6710.

COMMENTS

PNL
 82287
 REFERENCE NUMBER: NMSS 78-11 FIN # A0132 ASSIGNED TO: SAFER CONTRACTOR: LLL
 RES CONTACT: R. SHEPARD USER CONTACT:
 DATE REQUESTED: 11/27/78 RESPONSE LTR DATE: 01/22/79 PROJECT START:
 DATE NEEDED: USER AGREEMENT ON: * PROJECT END:

IDENTIFICATION OF REQUEST

INSIDER CRIME ANALOGOUS TO THE POTENTIAL THREAT TO NUCLEAR PROGRAMS

BASIS FOR NEED

TO SUPPORT THE ROUTINE THREAT ASSESSMENT REGULATORY FUNCTIONS, BROADEN
 NRC KNOWLEDGE OF THREAT AND SHARPEN ITS CAPABILITY TO ASSESS IT.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

NMSS ENDORSEMENT ONLY THROUGH FY-79 (SEPTEMBER 30, 1979).

REFERENCE NUMBER: NMSS-79-1 FIN # ASSIGNED IN: SAFER CONTRACTOR:

REC CONTACT:

USER CONTACT:

DATE REQUESTED: 01/24/79 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

INVESTIGATION OF THE DOSE AT THE SURFACE OF A SYRINGE FILLED WITH RADIOACTIVE LIQUID.

BASIS FOR NEED

TO ASSIST NMSS IN DETERMINING ITS LICENSING POLICIES RELATIVE TO THE USE OF SYRINGE SHIELDS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMIS 70-2 FIN # A0123 ASSIGNED TO: SAFER CONTRACTOR: LLL
RES CONTACT: R. SHEPARD USER CONTACT: J. DAVIDSON
DATE REQUESTED: 10/01/76 RESPONSE LTR DATE: 12/01/76 PROJECT START: 38/01/77
DATE NEEDED: USER AGREEMENT ON: 01/01/77 PROJECT END:

IDENTIFICATION OF REQUEST

COMMUNICATED THREAT ASSESSMENT

BASIS FOR NEED

TO DEVELOP A CAPABILITY TO PERFORM COMPREHENSIVE TECHNICAL AND
PSYCHOLOGICAL ASSESSMENT OF THREAT MESSAGES WHICH COMMUNICATE THE
INTENT TO COMMIT CRIMINAL ACTS USING NUCLEAR MATERIAL.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

ON-GOING PROJECT BEING PERFORMED IN CLOSE COOPERATION WITH NMSS AND DOE.

REFERENCE NUMBER: NMSS 79-3* FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: J. DAVIS

USER CONTACT: C. MACDONALD, D. NELLIS

DATE REQUESTED: 03/05/79 RESPONSE LTR DATE: 11/06/79 PROJECT START: 06/30

DATE NEEDED: USER AGREEMENT ON: 11/27/79 PROJECT END: FY 85

IDENTIFICATION OF REQUEST

MODAL STUDY OF TRANSPORTATION SAFETY

BASIS FOR NEED

DETERMINE IF CURRENT PACKAGE PERFORMANCE STANDARDS SHOULD BE REVISED TO REFLECT EXTREMELY SEVERE ACCIDENT ENVIRONMENTS. DEVELOP COST EFFECTIVE BASIS FOR ESTABLISHING POST TEST ACCEPTANCE STANDARDS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETE

COMMENTS

RFPA 80-182 OFFERS BEING EVALUATED 05/80.
RESPONSE LETTER TO STANDARDS IN DRAFT FORM ACCEPTABLE TO SD STAFF 05/80.

*SEE SD 79-1

REFERENCE NUMBER: NMSS 79-4 FIN # B6628 ASSIGNED TO: SAFER CONTRACTOR: UNIV. OF ARIZ.

RES CONTACT: J. DOYLE

USER CONTACT:

DATE REQUESTED: 02/09/79 RESPONSE LTR DATE: PROJECT START: 09/15/78

DATE NEEDED: USER AGREEMENT ON: 04/04/79 PROJECT END: 06/14/80

IDENTIFICATION OF REQUEST

HIGH LEVEL WASTE RESEARCH/DATING GROUND WATER

BASIS FOR NEED

- 1) DATING OF GROUNDWATER (STATE-OF-THE-ART).
- 2) THEORETICAL INVESTIGATIONS OF MASS AND ENERGY TRANSPORT - TO PROVIDE ASSESSMENT OF THE THEORY UNDERLYING THE TRANSPORT OF RADIONUCLIDES IN FRACTURED AND POROUS ROCKS.
- 3) SEALING ROCK MASSES - TO ASSESS CONVENTIONAL SEALING TECHNOLOGY FOR HAREHCLES; TO ASSESS CONVENTIONAL SEALING TECHNOLOGY IN DISCONTINUITY PLANES.
- 4) INDIRECT ROCK MASS INVESTIGATIONS - STATE-OF-THE-ART; REVIEW EFFORT; MERITS AND DRAWBACKS OF TECHNIQUES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 79-5 FIN # B7221 ASSIGNED TO: RSR CONTRACTOR:
RES CONTACT: J. DOYLE USER CONTACT:
DATE REQUESTED: RESPONSE LTR DATE: 12/19/79 PROJECT START: 01/02/80
DATE NEEDED: USER AGREEMENT ON: 12/19/79 PROJECT END: 06/30/80

IDENTIFICATION OF REQUEST

CONSULTING SUPPORT - NRC WASTE MANAGEMENT PROGRAM

BASIS FOR NEED

TO PROVIDE AN INDEPENDENT CRITICAL COMMENTARY ON THE DRAFT OF THE TECHNICAL SECTIONS OF 10 CFR 60, "DISPOSAL OF HIGH LEVEL RADIOACTIVE WASTES IN GEOLOGIC REPOSITORIES", BY EXPERT CONSULTANTS IN A WORKSHOP REVIEW.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 79-6 FIN # B2269 ASSIGNED TO: SAFER CONTRACTOR: PNL
B2370
RES CONTACT: L. SANTOS USER CONTACT: H. MILLER
DATE REQUESTED: 07/17/79 RESPONSE LTR DATE: 10/24/79 PROJECT START: 10/01/77
DATE NEEDED: USER AGREEMENT ON: PROJECT END: 09/30/82
09/30/82

IDENTIFICATION OF REQUEST

- A) ATTENUATION OF RADON EMISSION FROM URANIUM TAILING PILES
- B) MITIGATION OF LONG TERM EROSION OF RADON - SUPPRESSION COVERS
FOR URANIUM MILL TAILINGS

BASIS FOR NEEDSTATUS OF PROCESSING REQUEST FOR RESEARCHCOMMENTS

REFERENCE NUMBER: NMSS 79-7 EIN # A3221 ASSIGNED TO: SAFER CONTRACTOR: BNL
RES. CONTACT: R. ROBINSON USER CONTACT: A. GIARRATANA
DATE REQUESTED: 09/28/79 RESPONSE LTR DATE: PROJECT START: 11/30/79
DATE NEEDED: USER AGREEMENT ON: PROJECT END: 09/30/80

IDENTIFICATION OF REQUEST

SAFEGUARDS FOR PROLIFERATION RESISTANT FUEL CYCLES

BASIS FOR NEED

TO PROVIDE A FIRM BASIS FOR FUTURE NRC SAFEGUARD POLICIES FOR
DEVELOPMENT OF ALTERNATIVE FUEL CYCLES BY THE COMMERCIAL NUCLEAR
INDUSTRY.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 79-8* FIN # A3224 ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: C. JUPITER

USER CONTACT:

DATE REQUESTED: RESPONSE LTR DATE: 12/19/79 PROJECT START:

DATE NEEDED: USER AGREEMENT ON: 12/19/79 PROJECT END:

IDENTIFICATION OF REQUEST

CONSULTING SUPPORT - NRC WASTE MANAGEMENT PROGRAM

BASIS FOR NEED

TO PROVIDE AN INDEPENDENT CRITICAL COMMENTARY ON THE DRAFT OF THE TECHNICAL SECTIONS OF 10CFR60, "DISPOSAL OF HIGH LEVEL RADIOACTIVE WASTES IN GEOLOGIC REPOSITORIES", BY EXPERT CONSULTANTS IN A WORKSHOP REVIEW.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

* SEE NMSS 79-5

REFERENCE NUMBER: NMSS 79-9 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: SOLBERG

USER CONTACT: W. E. THOMPSON

DATE REQUESTED: 12/31/79 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED: USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

FUEL CYCLE FACILITY DECOMMISSIONING

BASIS FOR NEED

TO PROVIDE INFORMATION TO MEASURE THE EXTENT TO WHICH RADIOACTIVITY IS REMOVED AND RELEASED SO THAT AN ASSESSMENT CAN BE MADE OF WHAT THE HAZARDS ARE AND HOW CONTROL MEASURES MIGHT BE IMPLEMENTED.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

PLAN TO INITIATE IN FY 81.

REFERENCE NUMBER: NMSS 79-10 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: SOLBERG/SWANBERG

USER CONTACT: W. E. THOMPSON

DATE REQUESTED: 12/31/79 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

TECHNETIUM-99 ENVIRONMENTAL IMPACT

BASIS FOR NEED

TO PROVIDE INFORMATION SO THAT A COMPLETE AND RELIABLE ASSESSMENT OF
THE ENVIRONMENTAL IMPACTS OF TECHNETIUM-99 WILL BE AVAILABLE.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

UNDER EVALUATION.

REFERENCE NUMBER: NMSS 79-11 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: SWANBERG

USER CONTACT: W. E. THOMPSON

DATE REQUESTED: 12/31/79 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED: USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

RADIONUCLIDES CAUSING GREATEST LONG TERM IMPACTS

BASIS FOR NEED

TO ESTABLISH A FIRM DATA BASE FOR THE REFINEMENT OF ENVIRONMENTAL
IMPACT ANALYSES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 80-1 FIN # B6763 ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: W. TAYLOR

USER CONTACT: R. GRAMANN

DATE REQUESTED: 01/03/80 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

STRATEGIC ANALYSIS FOR SAFEGUARDS SYSTEMS

BASIS FOR NEED

PROVIDE A FIRM TECHNICAL BASIS FOR FUTURE NRC SAFEGUARDS POLICIES AND ACTIONS REGARDING THE ALLOCATION OF SAFEGUARDS RESOURCES IN THE LICENSED NUCLEAR INDUSTRY.

STATUS OF PROCESSING REQUEST FOR RESEARCH

BEING DEVELOPED BY TAYLOR AND GRAMANN.

COMMENTS

REFERENCE NUMBER: NMSS 80-2 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: W. TAYLOR

USER CONTACT: J. YARDUMIAN

DATE REQUESTED: 01/03/80 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED: USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

DEVELOPMENT OF DETERRENCE STRATEGIES BASED UPON ANALYSES OF
ADVERSARY CHARACTERISTICS

BASIS FOR NEED

TO EXAMINE VARIOUS STRATEGIES THAT MAY DETER POTENTIAL ADVERSARIES
OR MITIGATE THE EFFECTS OF THEIR ACTIVITIES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 80-3 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: W. TAYLOR

USER CONTACT: J. YARDUMIAN

DATE REQUESTED: 01/03/80 RESPONSE LTR DATE:

PROJECT START: FY 81

DATE NEEDED: USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

ALTERNATIVES FOR IMPLEMENTATION OF STRESS DETECTION SYSTEM

BASIS FOR NEED

TO DETERMINE THE FEASIBILITY OF ALTERNATIVE METHODS FOR IMPLEMENTING
A BEHAVIORAL OBSERVATION PROGRAM FOR LICENSEE EMPLOYEES AND TO ASSIST
IN IDENTIFYING CRITERIA FOR THE SELECTION OF POSSIBLE ALTERNATIVES. TO
PROVIDE INFORMATION TO SUPPORT NRC THREAT ASSESSMENT PLANNING RESPONSIBILITIES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 80-4 FIN # A1036 ASSIGNED TO: SAFER CONTRACTOR: ATOMICS INT'L
RES CONTACT: D. SOLBERG USER CONTACT: R. L. EVENSON
DATE REQUESTED: 01/23/80 RESPONSE LTR DATE: 03/21/80 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

CRITICALITY EXPERIMENTS AT ROCKY FLATS

BASIS FOR NEED

TO CONDUCT EXPERIMENTS WITH LOW-ENRICHED, LOW-MODERATED URANIUM OXIDES
WHICH WILL PROVIDE BENCHMARKS TO VALIDATE THE CALCULATIONAL METHODS USED
TO SHOW THE CRITICALITY SAFETY OF SIMILAR SYSTEMS IN LWR FUEL FABRICATION
PLANTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 80-5* FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT:

USER CONTACT: H. MILLER

DATE REQUESTED: 05/15/80 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

URANIUM RECOVERY LICENSING PROGRAM

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

* ALSO SEE NMSS 77-17 AND NMSS 79-6

REFERENCE NUMBER: NMSS 60-6 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: J. DURST

USER CONTACT: L. EVANS

DATE REQUESTED: 07/02/80 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED: USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

SPENT FUEL POOL SABOTAGE

BASIS FOR NEED

TO ESTABLISH A FIRMER TECHNICAL BASIS FOR THE DETERMINATION OF SAFEGUARDS POLICIES FOR SPENT FUEL POOLS. TO ESTABLISH CONSISTENT SAFEGUARD POLICIES FOR THE STORAGE, TRANSPORTATION, AND DISPOSAL OF SPENT FUEL.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 80-7 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT:

USER CONTACT:

DATE REQUESTED:

RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

GRADED SAFEGUARDS

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 80-A FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES. CONTACT:

USER CONTACT: T. C. JOHNSON

DATE REQUESTED: 08/08/80 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED: USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

TMI WASTE PROPERTIES

BASIS FOR NEED

TMI IS EXPECTED TO GENERATE RADIOACTIVE WASTES HAVING A WIDE RANGE OF CHARACTERISTICS. RESEARCH ON THESE WASTE TYPES ARE EXPECTED TO PROVIDE INFORMATION THAT HAS GENERIC INTEREST IN RADWASTE SOLIDIFICATION, DECONTAMINATION AND DECOMMISSIONING AREAS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 80-9 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: D. SOLBERG

USER CONTACT: J. JACKSON & W. LAKE

DATE REQUESTED: 08/20/80 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

TEMPERATURE DISTRIBUTION IN SPENT FUEL ASSEMBLIES IN SHIPPING CASKS.

BASIS FOR NEED

TO OBTAIN DATA WHICH CAN BE USED TO DEVELOP RECOMMENDATIONS REGARDING THE ADEQUACY OF EXISTING METHODS AND DATA AND TO DETERMINE IF THERE IS A NEED FOR TEST OR ANALYTIC DEVELOPMENT PROGRAMS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NMSS 80-10 FIN # A0367 ASSIGNED TO: SAFER CONTRACTOR: LLL

RES CONTACT:

USER CONTACT:

DATE REQUESTED: RESPONSE LTR DATE: 07/15/80 PROJECT START:

DATE NEEDED: USER AGREEMENT ON: 09/11/80 PROJECT END:

IDENTIFICATION OF REQUEST

GEOTECHNICAL ENVIRONMENTAL, AND RADIATION MEASUREMENT SYSTEM EVALUATION

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

SUPERSEDES NMSS 78-2 AND 77-20.

REFERENCE NUMBER: NRR 75-1 FIN # A1047 ASSIGNED TO: SRR CONTRACTOR: BCL/SANDIA
RES CONTACT: J. CURRY USER CONTACT: W. MINNERS
DATE REQUESTED: 07/30/76 RESPONSE LTR DATE: 02/10/77 PROJECT START: 04/00/76
DATE NEEDED: 10/00/79 USER AGREEMENT ON: PROJECT END: 12/00/78

IDENTIFICATION OF REQUEST

REACTOR SAFETY STUDY METHODOLOGY APPLICATIONS PROGRAM.

BASIS FOR NEED

APPLICATION OF WASH-1400 METHODOLOGY IN LICENSING SAFETY REVIEWS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

A SANDIA CONTRACT HAS BEEN LET WHICH IS PARTIALLY RESPONSIVE - COMMUNICATION CONTINUES WITH NRR TO FURTHER DEFINE THE BALANCE OF THE PROGRAM TO RESPOND FULLY TO THE NEED.

COMMENTS

RESPONSIVE TO REQUESTS BY NRR (R. HEINEMAN), ACRS AND OTHERS.
 NRR 76-18 IS A SUBSET OF THIS REQUEST AND THE SANDIA CONTRACT IS IN RESPONSE TO THAT SUBSET.

TASKS INVOLVING APPLICATION OF RSS METHODOLOGIES TO FOUR LWR DESIGNS ARE CONTINUING, WITH THE TECHNICAL WORK SCHEDULED FOR COMPLETION IN DECEMBER, 1978.

REFERENCE NUMBER: NRR 75-2 FIN # A6075 ASSIGNED TO: SAFER CONTRACTOR: INEL
B0171 ORNL

RES CONTACT: D. SOLBERG

USER CONTACT:

DATE REQUESTED: 05/22/75 RESPONSE LTR DATE: 11/21/77 PROJECT START: 10/01/77
05/04/78 10/01/77

DATE NEEDED: USER AGREEMENT ON: 12/16/77 PROJECT END: 09/30/83
09/16/77 09/30/78

IDENTIFICATION OF REQUEST

SOURCE TERM MEASUREMENTS AT OPERATING PWR'S; REACTOR RADWASTE GENERIC STUDY.

BASIS FOR NEED

TO VERIFY THE SOURCE TERM MODELS USED BY THE EFFLUENT TREATMENT SYSTEMS BRANCH, NRR, IN THEIR EVALUATIONS OF RADWASTE TREATMENT SYSTEMS PERFORMANCE.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

FIN #B0171 WAS COMPLETED ON 09/30/78.

DOCUMENTS ISSUED:

A-6075 - NUREG/CR-0140
NUREG/CR-038
NUREG/CR-0395
NUREG/CR-0715
NUREG/CR-0724
NUREG/CR-0755
NUREG/CR-0384

B0171 - NUREG/CR-0141
NUREG/CR-0142
NUREG/CR-0143

REFERENCE NUMBER: NRR 76-1 FIN # A0118 ASSIGNED TO: RSR CONTRACTOR: LLL
RES CONTACT: S. FABIC USER CONTACT: C. GRIMES
DATE REQUESTED: 03/17/76 RESPONSE LTR DATE: 09/01/76 PROJECT START: 04/00/76
DATE NEEDED: 01/03/77(I) USER AGREEMENT ON: N/A PROJECT END: (JULY 1977)
ASAP (F) 10/00/77 FINAL

IDENTIFICATION OF REQUEST

CONFIRMATORY RESEARCH FOR BWR POOL DYNAMICS.

BASIS FOR NEED

HIGH LOCALIZED STRUCTURAL LOADS RESULT FROM INITIAL PURGING OF DRYWELL AIR AND SUBSEQUENT STEAM CONDENSATION. THIS CAUSES SIGNIFICANT UPLIFT FORCES IN THE BWR MARK I CONTAINMENT TORUS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

1/5 SCALE, 90 DEGREE SECTOR TORUS SECTION HAS BEEN USED AT LLL FOR AIR VENTING TESTS BEGUN ON 03/08/77. THE AIR TESTS HAVE BEEN COMPLETED. THE TEST DATA WAS FORWARDED TO NRR AS QUICK LOOK REPORTS WERE RECEIVED. THE FINAL REPORT ON THE AIR TESTS IS EXPECTED ON 09/30/77. THE DATA WILL BE USED PRIMARILY FOR CODE VERIFICATION SINCE SCALING LAWS ARE NOT YET AVAILABLE FOR STEAM. THE NEED FOR STEAM TESTS IS BEING EVALUATED BY NRR AND RES. THE TEST APPARATUS WILL BE KEPT ON STANDBY FOR ABOUT A YEAR, PENDING A DECISION TO TEST WITH STEAM.

REFERENCE NUMBER: NRR 76-3 FIN # B2097 ASSIGNED TO: RSR CONTRACTOR: PNL
RES CONTACT: J. MUSCARA USER CONTACT: RB. LIAW/ J. RAJAN
DATE REQUESTED: 04/08/76 RESPONSE LTR DATE: 01/07/77 PROJECT START: 10/00/76
09/15/76
DATE NEEDED: 10/00/77 USER AGREEMENT ON: 03/07/77 PROJECT END: FY 1979

IDENTIFICATION OF REQUEST

STEAM GENERATOR TUBE INTEGRITY

BASIS FOR NEED

TO DETERMINE MARGINS OF FAILURE OF DEGRADED TUBES UNDER NORMAL OPERATING AND UPSET CONDITIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

PNL HAS COMPLETED BURST TUBING, USING TUBING WITH MECHANICAL DEFECTS; COLLAPSE TESTS ARE UNDERWAY. RESULTS FROM TUBES WITH ENVIRONMENTALLY INDUCED FLAWS ARE EXPECTED IN THE FALL OF 78. VALIDATION, USING SERVICE-DEFECTED TUBING IS EXPECTED TO BE PROVIDED IN FY 1979.

DOCUMENTS ISSUED: NUREG/CR-0718, 09/79
NUREG/CR-0714
NUREG - 0359, 03/77
NUREG/CR-0277, 12/77
NUREG/CR-0086, 03/78
NUREG/CR-0341, 06/78
RIL 83, 03/24/80

REFERENCE NUMBER: NRR 76-4 FIN # 66155 ASSIGNED TO: SAFER CONTRACTOR: U. FLA.

RES CONTACT: C. PRICHARD

USER CONTACT: G. GEARS

DATE REQUESTED: 04/30/76 RESPONSE LTR DATE: 06/08/77 PROJECT START: 06/01/77

DATE NEEDED: 1980 USER AGREEMENT ON: 06/20/77 PROJECT END: 11/30/80

IDENTIFICATION Or REQUEST

ASSESSMENT OF AGRICULTURAL LAND IN RELATION TO POWER PLANT SITING AND COOLING SYSTEM SELECTION/
ENERGY ANAL. METHOD - POWER PLANT SITING

BASIS FOR NEED

STAFF LACKS A COMPREHENSIVE LAND-USE ASSESSMENT METHODOLOGY FOR LICENSING APPLICATIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

SOLE SOURCE JUSTIFICATION WRITTEN FOR UNIVERSITY OF FLORIDA FOR PHASE I, AND PHASE II

COMMENTS

PHASE I COMPLETED 10/11/78. DELAY ENCOUNTERED IN GETTING SOLE SOURCE APPROVAL FROM
CONTRACTS FOR PHASE II. PHASE II STARTED 09/20/79.

REFERENCE NUMBER: NRR 76-5 FIN # B5745 ASSIGNED TO: SAFER CONTRACTOR: FLA. STATE U.
RES CONTACT: C. PRICHARD USER CONTACT: D. CLEARY
DATE REQUESTED: 05/13/76 RESPONSE LTR DATE: 06/13/77 PROJECT START: 06/10/76
DATE NEEDED: 05/00/77 USER AGREEMENT ON: 07/11/77 PROJECT END: 07/27/77

IDENTIFICATION OF REQUEST

IMPACTS OF COASTAL AND OFFSHORE NUCLEAR GENERATING STATIONS ON RECREATIONAL AND TOURIST BEHAVIOR AT ADJACENT COASTAL SITES.

BASIS FOR NEED

TO SUPPORT COST-BENEFIT ANALYSIS OF NUCLEAR POWER PLANT LICENSING APPLICATIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

DOCUMENT ISSUED: NUREG-0394

REFERENCE NUMBER: NFR 76-6 FIN # B5738 ASSIGNED TO: SAFER CONTRACTOR: U. ENG.
RES CONTACT: C. PRICHARD USER CONTACT: J. ROBERTS
DATE REQUESTED: 15/20/76 RESPONSE LTR DATE: 05/31/77 PROJECT START: 09/01/76
05/24/77
DATE NEEDED: 06/03/77 USER AGREEMENT ON: PROJECT END: 12/31/77

IDENTIFICATION OF REQUEST

FORECASTS OF GENERATING COSTS OF COAL AND NUCLEAR PLANTS.

BASIS FOR NEED

TO PROVIDE AN INFORMATION BASE TO ALLOW AN EVALUATION OF ALTERNATIVES TO PROPOSED LICENSING ACTIONS - IN THE PERFORMANCE OF NEPA OBLIGATIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

PROCESSING OF REQUEST COMPLETED.

COMMENTS

WORK IS JOINTLY FUNDED BY ERDA AND NRC AND IS UNDER CONTRACT TO UNITED ENGINEERS.

DOCUMENTS ISSUED: NUREG-0243, 05/79
NUREG-0242, 05/77
NUREG-0246, 04/79
NUREG-0247, 09/78
NUREG-0241, 04/79
RIL-51, 04/12/79
RIL-55, 05/29/79

REFERENCE NUMBER: NRR 76-7 FIN # 85744 ASSIGNED TO: SAFER CONTRACTOR: LEHIGH
RES CONTACT: F. SWANEYRG USER CONTACT: R. GILBERT
DATE REQUESTED: 05/20/76 RESPONSE LTR DATE: 08/05/77 PROJECT START: 09/01/76
DATE NEEDED: NOW -1979 USER AGREEMENT ON: 08/23/77 PROJECT END: 09/30/82

IDENTIFICATION OF REQUEST

EFFECTS OF NUCLEAR POWER PLANT OPERATIONS ON MARINE BORER POPULATIONS.

BASIS FOR NEED

RESOLVE QUESTION OF EFFECT OF WARM REACTOR EFFLUENTS ON SHIP-WORM POPULATIONS AT OYSTER CREEK, FORKED RIVER, AND BARNEGAT BAY.

STATUS OF PROCESSING REQUEST FOR RESEARCH

WORK IS UNDER CONTRACT TO LEHIGH UNIVERSITY. A RESPONSE LETTER FROM LEVINE TO CASE WAS TRANSMITTED ON AUGUST 5, 1977, DESCRIBING THE FORMULATED WORK SCOPE AND REQUESTING NRR'S AGREEMENT. THIS WORK WAS FURTHER ENDORSED BY NRR WITH THE REQUEST TO CONTINUE WITH LEHIGH U. FOR AT LEAST 3 MORE YEARS.

COMMENTS

IT IS EXPECTED THAT THE WORK WILL REQUIRE 3 YEARS TO BE COMPLETED.

DOCUMENTS ISSUED: NUREG/CR-0896, 09/79
NUREG/CR-0380, 01/79
NUREG/CR-0634, 03/79
NUREG/CR-0812, 06/79

REFERENCE NUMBER: NRR 76-9 FIN # B2265 ASSIGNED TO: SAFER CONTRACTOR: PNL
RES CONTACT: C. PRICHARD USER CONTACT: M. KALTMAN
DATE REQUESTED: 06/25/76 RESPONSE LTR DATE: 08/14/77 PROJECT START: 03/01/78
 03/07/78
DATE NEEDED: 12/00/80 USER AGREEMENT PN: 07/29/77 PROJECT END: 09/30/79

IDENTIFICATION OF REQUEST

CONSTRUCTION LABOR FORCE MOBILITY AND RESIDENTIAL CHOICES.

BASIS FOR NEED

MOST CONSEQUENTIAL PLANT CONSTRUCTION IMPACTS ON LOCAL COMMUNITIES ARE ASSOCIATED WITH CONSTRUCTION LABOR FORCE.

STATUS OF PROCESSING REQUEST FOR RESEARCH

PROJECT UNDERWAY.

COMMENTS

REFERENCE NUMBER: NRR 76-10 FIN # B0406 ASSIGNED TO: SAFER CONTRACTOR: ORNL

RES. CONTACT: P. REED USER CONTACT: C. MILLUPS

DATE REQUESTED: 06/28/76 RESPONSE LTR DATE: 11/04/77 PROJECT START: 10/01/77

DATE NEEDED: 07/00/78 USER AGREEMENT ON: 11/17/77 PROJECT END: 09/30/81

IDENTIFICATION OF REQUEST

ASSESSING THE SIGNIFICANCE OF THREADFIN SHAD IMPINGEMENT DUE TO COLD SHOCK AT NUCLEAR POWER PLANTS.

BASIS FOR NEED

LICENSING ACTIONS UNDER NEPA INCLUDE RESPONSIBILITY TO EVALUATE ENVIRONMENTAL EFFECTS OF "IMPORTANT" SPECIES OF AQUATIC ORGANISMS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

PROGRAM BEING DEVELOPED TO ACCESS POPULATION RESPONSES USING DOWNSCAN SONAR AND OTHER POPULATION ESTIMATION TECHNIQUES.

DOCUMENTS ISSUED: NUREG/CR-0637, 02/79

REFERENCE NUMBER: NRR 76-11 FIN # A0119 ASSIGNED TO: SAFER CONTRACTOR: LLL
 B2098 PNL
 B0169 ORNL
 B5749 UNC
 B6248

RES CONTACT: P. REED

USER CONTACT: R. SAMWORTH, J. LEHR

DATE REQUESTED: 06/28/76 RESPONSE LTR DATE: 05/17/77 PROJECT START: 09/01/78
 09/30/77
 01/31/77
 06/01/77

DATE NEEDED: FY 81 USER AGREEMENT ON: 05/31/77 PROJECT END: 09/30/80
 * 09/30/81
 09/30/80
 06/30/78
 06/30/81

IDENTIFICATION OF REQUEST

RESEARCH INTO CHEMICAL DISCHARGES TO RECEIVING WATER/CHEMICAL EFFLUENTS-NPP/BIOCIDE BY-PRODUCTS IN LWR EFFLUENTS/UNIFIED TRANSPORT.

BASIS FOR NEED

IN ACCORDANCE WITH LICENSING RESPONSIBILITIES UNDER NEPA, 10CFR PART 51, AND REGULATORY GUIDE 4.2, NRC, THERE IS A NEED TO ASSESS IMPACT OF DISCHARGE OF PLANT CHEMICALS TO RECEIVING WATERS AND IMPACTS TO BIOTA.

STATUS OF PROCESSING REQUEST FOR RESEARCH

FORMULATION OF WORK SCOPES COMPLETED FOR CHLORINE AND COPPER INVESTIGATIONS; PROJECT BEING DEVELOPED FOR INVESTIGATION OF EFFECTS OF TOTAL DISSOLVED SOLIDS.

COMMENTS

THE WORK IS DIVIDED INTO THREE PARTS. THEY ARE:

- A) ENVIRONMENTAL IMPACT FROM DISCHARGED COPPER. THIS WORK IS BEING PERFORMED AT LLL. MARINE STUDIES ARE BEING COMPLETED. FRESH WATER STUDIES ARE TO START IN FY 1978 AT UNIV. OF NORTH CAROLINA.
- B) ENVIRONMENTAL IMPACT FROM DISCHARGED CHLORINE. THIS WORK IS BEING PERFORMED AT PNL, ORNL AND U. OF WASHINGTON.
- C) ENVIRONMENTAL IMPACT FROM TOTAL DISSOLVED SOLIDS IN THE DISCHARGED STREAM--WORK SCOPE BEING DEVELOPED.
- D) SOME PROJECTS DELAYED BECAUSE PRINCIPAL INVESTIGATORS CANNOT GET INTO POWER STATIONS TO COLLECT SAMPLES FROM DISCHARGES DUE TO STATION SHUTDOWNS.

* SECY-78-622

DOCUMENTS ISSUED:

A0119 - NUREG/CR-0747, 10/79 B5679 - NUREG/CR-0552, 02/79 B2098 - NUREG/CR-0504, 01/79
 NUREG/CR-0748, 06/79 NUREG/CR-0865, 09/79
 NUREG/CR-0684, 05/79 NUREG/CR-0474, 10/78

REFERENCE NUMBER: NRR 76-12 FIN # B2096 ASSIGNED TO: SAFER CONTRACTOR: UNI
RFS CONTACT: J. FOULKE USER CONTACT: T. MURPHY
DATE REQUESTED: 06/30/76 RESPONSE LTR DATE: 06/09/77 PROJECT START: 08/01/76
DATE NEEDED: USER AGREEMENT ON: 06/28/77 PROJECT END: 1979

IDENTIFICATION OF REQUEST

EVALUATION OF LWR OCCUPATIONAL RADIATION EXPOSURE REDUCTION TECHNIQUES.

BASIS FOR NEED

DEFINE QUANTITATIVE USEFULNESS AND EFFECTIVENESS OF REG. GUIDE 8.8 (ALARA) SO THAT STAFF REVIEWERS CAN CONCENTRATE ON AREAS MOST EFFECTIVE RELATIVE TO MEETING REQUIREMENTS OF PERTINENT REGULATIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

COMPLETED.

DOCUMENTS ISSUED: RIL 80, 01/15/80
NUREG/CR-0446, 04/79

REFERENCE NUMBER: NRR 76-13 FIN # 86167 ASSIGNED TO: RSR CONTRACTOR: MIT
RES CONTACT: S. FABIC USER CONTACT: C. GRIMES
DATE REQUESTED: 07/09/76 RESPONSE LTR DATE: 09/01/76 PROJECT START: 10/00/76
DATE NEEDED: 09/00/77 USER AGREEMENT ON: N/A PROJECT END: 11/00/77

IDENTIFICATION OF REQUEST

SCALING LAWS FOR BWR SUPPRESSION POOL TESTS.

BASIS FOR NEED

VALIDATION OF SCALING LAWS USED IN THE CONFIRMATION OF THE EVALUATION BASIS FOR THE G.E. MARK I TESTING PROGRAM AND DEMONSTRATION THAT PRESSURE LOADS CAN BE EXTRAPOLATED TO PERMIT EVALUATION OF THE MARK I LONG-TERM PROGRAM.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

PROJECT WAS INITIATED AT MIT 10/76. TEST APPARATUS FABRICATION COMPLETE 01/77. LAB SCALE TEST PROGRAM COMPLETE 10/77. FINAL REPORT EXPECTED 11/77. RESPONSE TO NRR REGARDING THIS REQUEST WAS INCLUDED WITH 09/01/76 LETTER RESPONSE TO NRR 76-1.

DOCUMENTS ISSUED: NUREG/CR-0978, 09/79
 NUREG/CR-0151, 10/77
 NUREG/CR-0003, 12/77

REFERENCE NUMBER: NRR 76-14 FIN # 02266 ASSIGNED TO: SAFER CONTRACTOR: PNL
 RES CONTACT: C. PRICHARD USER CONTACT: M. KALTMAN
 DATE REQUESTED: 07/14/76 RESPONSE LTR DATE: 07/25/77 PROJECT START: 10/01/77
 DATE NEEDED: USER AGREEMENT ON: 08/08/77 PROJECT END: 09/30/80

IDENTIFICATION OF REQUEST

STUDY OF THE VISUAL CHANGE WITHIN A REGION DUE TO ALTERNATIVE CLOSED CYCLE COOLING SYSTEMS AND ASSOCIATED SOCIOECONOMIC IMPACTS.

BASIS FOR NEED

NRC IS REQUIRED TO ASSESS POTENTIAL SOCIOECONOMIC IMPACTS ON COMMUNITIES WHICH SURROUND PLANT SITES, AS PART OF THE COST-BENEFIT ANALYSIS TO LICENSING APPLICATIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

DRAFT RIL IN PREPARATION.

DOCUMENTS ISSUED: NUREG/CR-0939, 04/80

REFERENCE NUMBER: NRR 76-15 FIN # B6609 ASSIGNED TO: RSR CONTRACTOR: CWA
 RES CONTACT: J. COSTELLO USER CONTACT: P. WILLIAMS
 DATE REQUESTED: 07/21/76 RESPONSE LTR DATE: 05/31/78 PROJECT START: 07/01/79
 DATE NEEDED: 10/00/77 USER AGREEMENT ON: 12/27/78 PROJECT END: 09/30/80

IDENTIFICATION OF REQUEST

TORNADO GENERATED MISSILE CRITERIA/AUTO IMPACT STUDIES.

BASIS FOR NEED

PROVIDE BASIS FOR STAFF TO REACH A CONCLUSION AS TO THE ACCEPTABILITY OF THE PROPOSED DESIGN AGAINST HAZARDS OF MISSILES GENERATED BY NATURAL PHENOMENA (CRITERION 2 OF THE GENERAL DESIGN CRITERIA OF APPENDIX A TO 10 CFR PART 50).

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETE

COMMENTS

THIS PROJECT IS PART OF TASK ACTION PLAN A-3B, TORNADO MISSILES.

REFERENCE NUMBER: NRR 76-16 FIN # A6115 ASSIGNED TO: SAFER CONTRACTOR: ACC
RES CONTACT: W. LAHS USER CONTACT: J. COLLINS
DATE REQUESTED: 07/21/76 RESPONSE LTR DATE: 07/25/76 PROJECT START: 08/01/77
DATE NEEDED: 12/00/78 USER AGREEMENT ON: 08/25/77 PROJECT END:

IDENTIFICATION OF REQUEST

USE OF REVERSE OSMOSIS FOR PROCESSING RADIOACTIVE LIQUID WASTES FROM NUCLEAR POWER REACTORS.

BASIS FOR NEED

SUPPORT NRR EFFORT IN REVIEW OF CP/OL LICENSE APPLICATIONS AND REEVALUATION OF OPERATING REACTORS FOR CONFORMANCE WITH THE REQUIREMENTS OF APPENDIX I TO 10 CFR PART 50.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

A RESEARCH ORDER WAS ISSUED TO ALLIED CHEMICAL CORP (ACC) AT INEL TO PERFORM CRITICAL REVIEWS OF EXISTING DATA ON REVERSE OSMOSIS APPLICABLE TO LWR'S ACC ESTIMATES CONTRACT COMPLETION IN JANUARY, 1978.

REFERENCE NUMBER: NRR 76-17 FIN # A1214 ASSIGNED TO: SRR CONTRACTOR: SANDIA
RES. CONTACT: K. MURPHY USER CONTACT: W. REGAN
DATE REQUESTED: 07/28/76 RESPONSE LTR DATE: 02/11/77 PROJECT START: 06/01/78
05/15/78
DATE NEEDED: USER AGREEMENT ON: PROJECT END: 06/01/82

IDENTIFICATION OF REQUEST

NON-RADIOLOGICAL TRANSPORTATION ACCIDENT EVALUATION FOR SITING OF NUCLEAR POWER PLANTS/
HAZARDS TO NUCLEAR POWER PLANTS FROM NEARBY TRANSPORTATION ACCIDENTS.

BASIS FOR NEED

LACK OF ADEQUATE SHIPMENT AND ACCIDENT DATA AVAILABLE TO LICENSEE APPLICANTS AND NRC STAFF FOR
PROCESSING OF LICENSES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

WORK IN PROGRESS.

COMMENTS

REFERENCE NUMBER: NRR 76-18 FIN: A1047 ASSIGNED TO: SRR CONTRACTOR: SANDIA
RES CONTACT: M. TAYLOR USER CONTACT: L. BELTRACCHI
DATE REQUESTED: 02/11/76 RESPONSE LTR DATE: 02/19/77 PROJECT START: 10/00/76-I
 01/00/78-II
DATE NEEDED: 03/00/77-I USER AGREEMENT ON: PROJECT END: 03/00/77 (PHASE I)
 03/00/78-II

IDENTIFICATION OF REQUEST

PHASE I - RELIABILITY EVALUATION OF THE COMBUSTION ENGINEERING COMPUTER PROTECTION SYSTEM,
 COMPARED TO CONVENTIONAL ANALOG COMPUTER PROTECTION SYSTEMS.
 PHASE II - USE PHASE I RESULTS TO ASSIST IN ESTABLISHING LCO REQUIREMENTS FOR TECHNICAL
 SPECIFICATIONS..

BASIS FOR NEED

FIRST OF A KIND USE REQUIRING EVALUATION TO ASSIST IN THE COMPLETION OF NRR SAFETY REVIEW.

STATUS OF PROCESSING REQUEST FOR RESEARCH

PHASE I - COMPLETED, MARCH, 1977
 PHASE II - COMPLETED, MARCH, 1978

COMMENTS

THIS FORMULATED PROJECT IS A SUBSET OF THE RESPONSE TO NRR 75-1.
 A LETTER REPORT WAS ISSUED IN SEPTEMBER, 1977 ON THE PHASE I WORK.

IN JAN 1978, ADDITIONAL (IN-HOUSE) EFFORT WAS REQUESTED BY THE INSTRUMENTATION
 BRANCH OF DSS/NRR. THIS EFFORT WAS TO USE PHASE I RESULTS TO ASSIST IN ESTABLISHING
 TECHNICAL SPECIFICATION REQUIREMENTS APPLICABLE TO USE OF CE DIGITAL COMPUTER PROTECTION
 SYSTEM IN A LICENSING APPLICATION. THIS IN-HOUSE PHASE II TECHNICAL WORK HAS BEEN
 COMPLETED AND THE RESULTS PRESENTED TO THE USER. FORMAL CONCLUSION OF THIS PARTICULAR
 IN-HOUSE WORK IS EXPECTED TO BE ACKNOWLEDGED BY LETTER IN APRIL, 1978.

REFERENCE NUMBER: NRR 76-19 FIN # B0191 ASSIGNED TO: RSR CONTRACTOR: ORNL
RES CONTACT: W. JARMER USER CONTACT: H. VANDERMOLEN
DATE REQUESTED: 09/22/76 RESPONSE LTR DATE: 10/21/76 PROJECT START: 09/00/76
DATE NEEDED: 10/00/77 USER AGREEMENT ON: N/A PROJECT END: FY 82

IDENTIFICATION OF REQUEST

NOISE ANALYSIS DIAGNOSIS FOR NUCLEAR POWER PLANTS.

BASIS FOR NEED

TO PROVIDE NRR WITH INFORMATION TO ALLOW EFFECTIVE ASSESSMENT OF THE IMPLEMENTATION OF NOISE DIAGNOSTIC SYSTEMS IN OPERATING REACTORS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

A PROGRAM WAS INITIATED AT ORNL 09/76. BASELINE MEASUREMENTS WERE TAKEN IN FY 1976 AT 3 BWRs. AN ANALYSIS USING NOISE DIAGNOSTIC TECHNIQUES TO DETECT AND QUANTIFY FUEL & CONTROL ROD VIBRATIONS AND AN ASSESSMENT OF LOOSE PARTS MONITORING IS BEING PERFORMED. MEASUREMENTS AND INITIAL ASSESSMENT STUDIES ARE EXPECTED TO BE COMPLETE 10/78. SD, NRR AND RES ARE JOINTLY SPONSORING A CONTINUING INVESTIGATION OF THIS PROBLEM AREA, WHICH IS EXPECTED TO BE COMPLETED IN OCTOBER, 1980.

ANALYSIS OF FIELD MEASUREMENTS IN 1977-78 AFTER BWR-4 FUEL AND BOX CHANGES WERE MADE BY GE INDICATE THAT THE INSTRUMENT TUBE VIBRATIONS HAVE BEEN ELIMINATED. THE LOOSE PARTS MONITORING SYSTEM SURVEY HAS BEEN COMPLETED. THE ORNL ANALYTICAL STUDY OF NOISE DIAGNOSTIC TECHNIQUES TO DETECT AND QUANTIFY FUEL AND CONTROL ROD VIBRATIONS IS CONTINUING.

THE SCOPE OF THIS ACTIVITY HAS BEEN EXTENDED TO LABORATORY EXPERIMENTS TO EVALUATE AND IMPROVE LOOSE PARTS MONITORING SYSTEM (LPMS) PERFORMANCE. PROJECT COMPLETION IS ESTIMATED TO BE OCTOBER, 1980.

DOCUMENTS ISSUED: NUREG/CR-0525, 12/78

REFERENCE NUMBER: NRR 76-20 FIN # B6003 ASSIGNED TO: SAFER CONTRACTOR: NRL
RES CONTACT: D. SOLBERG USER CONTACT: R. BELLAMY
DATE REQUESTED: 10/22/76 RESPONSE LTR DATE: 11/28/77 PROJECT START: 01/15/77
DATE NEEDED: 03/00/78 USER AGREEMENT ON: 12/14/77 PROJECT END: 09/30/80
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IDENTIFICATION OF REQUEST

CONFIRMATORY RESEARCH FOR THE PERFORMANCE OF ACTIVATED CHARCOAL IN NORMAL VENTILATION EXHAUST SYSTEMS.

BASIS FOR NEED

TO IMPROVE NRC'S CAPABILITY TO EVALUATE THE RADIOACTIVE WASTE MANAGEMENT SYSTEMS PROPOSED OR INSTALLED IN NUCLEAR POWER REACTORS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETE

COMMENTS

WORK BEING DONE UNDER AN INTERAGENCY AGREEMENT WITH NRL.

EXPOSURE OF FILTERS TO NATURAL ENVIRONMENT AT NRL AND TWO OTHER LOCATIONS FOR VARIOUS DURATIONS WAS COMPLETED AND EFFECTS ON METHYL IODIDE PENETRATION DETERMINED. EVALUATION OF LABORATORY EXPOSURES IN PROGRESS.

* SECY-78-622

DOCUMENTS ISSUED: NUREG/CR-0771
NUREG/CR-0025

REFERENCE NUMBER: NRR 76-21 FIN # A6033 ASSIGNED TO: RSR CONTRACTOR: INEL
RES CONTACT: H. SULLIVAN USER CONTACT: N. LAUBREN
DATE REQUESTED: 11/08/76 RESPONSE LTR DATE: 01/17/77 PROJECT START: 03/12/79
DATE NEEDED: 12/00/77 USER AGREEMENT ON: 11/28/78 PROJECT END: 02/07/82

IDENTIFICATION OF REQUEST

PWR SYSTEM PERFORMANCE WITH UPPER HEAD INJECTION.

BASIS FOR NEED

NRR NEEDS CONFIRMATORY SYSTEM VERIFICATION DATA FOR UHI MODE OF ECC INJECTION FOR PWR PERFORMANCE.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

SEMISCALE HAS BEEN MODIFIED TO INCLUDE UHI INTERNALS, A 12-FOOT HEATED CORE AND A SINGLE PIPE DOWNCOMER. SEVEN BASELINE TESTS ARE UNDERWAY TO PROVIDE SYSTEM PERFORMANCE CHARACTERISTICS PRIOR TO INVESTIGATING UHI AND OTHER ECC INJECTION TECHNIQUES.

THE MOD 3 CONFIGURATION WILL BE FURTHER MODIFIED TO INVESTIGATE ECC BYPASS AND UHI BEHAVIOR UTILIZING A TWO PIPE EXTERNAL DOWNCOMER. THIS TEST SERIES WILL COMMENCE AUGUST, 1979.

DOCUMENTS ISSUED:

A6038 - NUREG/CR-0254, 08/78	NUREG/CR-0467, 01/79
NUREG/CR-0281, 09/78	NUREG-1124, 12/79
NUREG/CR-0289, 07/78	NUREG/CR-0356, 12/78
NUREG/CR-0291, 12/78	NUREG/CR-0814, 06/79
NUREG/CR-0406, 01/79	NUREG/CR-0815, 06/79
	NUREG/CR-0871, 07/79

REFERENCE NUMBER: NRR 76-22 FIN # B6206 ASSIGNED TO: SAFER CONTRACTOR: MAGI

RES CONTACT: D. SOLBERG USER CONTACT: J. MINNS

DATE REQUESTED: 11/09/76 RESPONSE LTR DATE: PROJECT START: 02/27/79

DATE NEEDED: 08/00/78 USER AGREEMENT ON: 11/28/78 PROJECT END: 08/01/80

IDENTIFICATION OF REQUEST

EVALUATION OF REACTOR EVALUATION STREAMING.

BASIS FOR NEED

STUDY TO CONFIRM THAT MONTE CARLO METHODS CAN BE USED TO ACCURATELY ESTIMATE RADIATION STREAMING IN NUCLEAR POWER PLANTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

FINAL REPORT COMPLETED AND AWAITING NRC SUPPLEMENT.

COMMENTS

REFERENCE NUMBER: NRR 76-23 FIN # B2041 ASSIGNED TO: RSR CONTRACTOR: PNL
RES CONTACT: S. FABIC USER CONTACT: H. LAUBREN
DATE REQUESTED: 11/22/76 RESPONSE LTR DATE: 01/17/77 PROJECT START: BEG FY78
DATE NEEDED: 10/00/77 USER AGREEMENT ON: PROJECT END: 10/00/78

IDENTIFICATION OF REQUEST

COBRA-IV LOCA ANALYSIS OF PLANTS EQUIPPED WITH UHI.

BASIS FOR NEED

NEED TO EXTEND THE NUMERICAL SIMULATION MODEL IN THE COBRA-IV CODE TO ALLOW PREDICTION OF RELEVANT THERMAL-HYDRAULIC PHENOMENA DURING A LOCA IN PLANTS EQUIPPED WITH UHI.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

THE FY78 COBRA-IV EFFORT AT PNL IS BEING DIRECTED TO MODEL THE FLUID DELIVERY FROM THE UPPER HEAD AND UPPER PLENUM TO THE CORE. UHI SYSTEM SIMULATION CALCULATIONS SHOULD BEGIN IN EARLY FY 78.

REFERENCE NUMBER: NRR 76-24 FIN # 06205 ASSIGNED TO: SAFER CONTRACTOR: INTER
 RES CONTACT: P. REED USER CONTACT: J. KLINE
 DATE REQUESTED: 12/08/76 RESPONSE LTR DATE: PROJECT START: 09/10/76
 DATE NEEDED: 07/30/79 USER AGREEMENT CN: 12/08/76 PROJECT END: 09/30/79

IDENTIFICATION OF REQUEST

SENSITIVITY OF CERTAIN AERIAL PHOTOGRAPHIC TECHNIQUES.

BASIS FOR NEED

DETERMINE THE FEASIBILITY OF USING REMOTE (AERIAL PHOTOGRAPHIC) SENSING TECHNIQUES TO MEET REGULATORY NEEDS IN A MORE EFFICIENT AND EFFECTIVE MANNER.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

PROJECT COMPLETED. FINAL REPORT BEING PRINTED WITH COLOR PHOTOGRAPHS WHICH IS A LENGTHY PROCESS SINCE GPO IS PRINTING NUREG REPORT.

REFERENCE NUMBER: NRR 77-1 FILE B0190 ASSIGNED TO: SAFER CONTRACTOR: ORNL
RES CONTACT: C. PRICHARD USER CONTACT: D. HASH
DATE REQUESTED: 01/14/77 RESPONSE LTR DATE: 06/09/77 PROJECT START: 10/01/78
12/06/77
DATE NEEDED: 10/00/77 USER AGREEMENT ON: 06/23/77 PROJECT END: 09/30/80
*

IDENTIFICATION OF REQUEST

FORECASTING ELECTRICITY DEMAND BY STATE AND UTILITY SERVICE AREA IN THE U.S. ON AN ANNUAL BASIS.

BASIS FOR NEED

IMPROVE NRC'S CAPABILITY FOR ASSESSING THE NEED FOR POWER FORECASTS OF APPLICANTS OF NUCLEAR POWER PLANTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

PARTIALLY COMPLETED

COMMENTS

WORK IS UNDER CONTRACT WITH ORNL AND IS PROGRESSING ON SCHEDULE.

*SECY-78-622

DOCUMENTS ISSUED: NUREG/CR-0250, 10/78
NUREG/CR-1147, 03/80
RIL #87, 04/80

REFERENCE NUMBER: NRR 77-2 FJN # B6204 ASSIGNED TO: RSR CONTRACTOR: WESTINGHOUSE

RES CONTACT: H. SULLIVAN

USER CONTACT: W. HODGES

DATE REQUESTED: 02/09/77 RESPONSE LTR DATE: 04/28/78 PROJECT START: 07/01/77

DATE NEEDED: 1981 OR 1982 USER AGREEMENT ON: 07/06/79 PROJECT END: 12/00/81

IDENTIFICATION OF REQUEST

EXTENSION OF THE PWR FLECHT PROGRAM.

BASIS FOR NEED

PROVIDE A BASIS FOR A COORDINATED REAPPRAISAL OF PARAGRAPH 50.46 AND APPENDIX K IN ORDER TO PERMIT LICENSING ON A LESS EXTREME BASIS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

RES HAS NEGOTIATED A JOINT PROGRAM WITH EPRI AND WESTINGHOUSE.

COMMENTS

WORK IS UNDERWAY AT WESTINGHOUSE. THE CONTRACT PERFORMANCE EXTENDS THROUGH MARCH, 1982.

REFERENCE NUMBER: NRR 77-3 FIN. # D0411 ASSIGNED TO: SAFER CONTRACTOR: ORNL
RES. CONTACT: C. PRICHARD USER CONTACT: D. CLEARY
DATE REQUESTED: 05/31/77 RESPONSE LTR. DATE: 08/29/77 PROJECT START: 10/01/77
DATE NEEDED: ASAP USER AGREEMENT ON: 09/12/77 PROJECT END: 09/30/78

IDENTIFICATION OF REQUEST

GENERIC STUDY OF THE IMPACT OF CONSERVATION, RATE STRUCTURE ALTERNATIVES, LOAD MANAGEMENT ALTERNATIVES, AND COGENERATION ON THE NEED FOR POWER.

BASIS FOR NEED

TO PROVIDE A REPORT WHICH REVIEWS AND SUMMARIZES THE RESULTS OF RECENT STUDIES AND WHICH PUTS INTO PERSPECTIVE THE FUTURE PROSPECTIVE IMPACTS OF THESE VARIOUS ALTERNATIVES ON THE NEED FOR POWER. THIS REPORT WILL SERVE AS A REFERENCE DOCUMENT FOR USE BY COST-BENEFIT ANALYSTS IN PREPARING THE NEED FOR POWER SECTIONS OF EIS'S AND IN PREPARING SUPPLEMENTARY TESTIMONY AS REQUIRED TO ADDRESS CONTENTIONS ON THESE ISSUES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

PROJECT UNDERWAY

COMMENTS

DOCUMENTS ISSUED: NUREG/CR-0712, 04/79
NUREG/CR-0713, 04/79
NUREG/CR-0714, 04/79
NUREG/CR- , 06/80

REFERENCE NUMBER: NRR 77-4 FIN # ASSIGNED TO: SRR CONTRACTOR:

RES CONTACT: J. MURPHY USER CONTACT:

DATE REQUESTED: 06/14/77 RESPONSE LTR DATE: 07/12/77 PROJECT START:

DATE NEEDED: 08/01/77 USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

QUANTIFICATION OF THE SEISMIC DESIGN BASIS FOR FIRE PROTECTION SYSTEMS

BASIS FOR NEED

THERE IS A NEED TO DEVELOP A BASIS FOR THE POSITIONS TAKEN IN REGULATORY GUIDE 1.120 "FIRE PROTECTION GUIDELINES FOR NUCLEAR POWER PLANTS" APPLICABLE TO ALL REGIONS OF THE UNITED STATES. THIS WILL ASSIST NRR IN FURTHER ASSESSING THE NEED FOR IMPROVED FIRE PROTECTION SYSTEMS WITH REGARD TO SEISMIC DESIGN BASIS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

THE REQUESTED ANALYSIS WILL REQUIRE AS INPUT A DETERMINATION OF THE LIKELIHOOD OF EARTHQUAKES OF VARIOUS MAGNITUDES AT SITES WEST OF THE ROCKY MOUNTAINS. ATTEMPTS HAVE BEEN MADE TO PREDICT THIS LIKELIHOOD AT DIABLO CANYON BY THE APPLICANT. WE UNDERSTAND THESE STUDIES ARE BEING EVALUATED BY NRR AND NRR WILL INDEPENDENTLY ASSESS THIS LIKELIHOOD.

TO AVOID DUPLICATION OF EFFORT, IT DOES NOT APPEAR REASONABLE TO PROCEED WITH THE ANALYSIS OF SEISMICALLY-INDUCED FIRES, AS REQUESTED, UNTIL WE HAVE A CONSENSUS OF OPINION ON THE LIKELIHOOD OF THE INITIATING EARTHQUAKE. THIS NEED, COMBINED WITH PRIOR MANPOWER COMMITMENTS WITHIN RES, PRECLUDES MEETING NRR'S REQUEST BY AUGUST 1. WE BELIEVE THAT WE CAN COMPLETE THE REQUESTED EFFORTS ON A SCOPING BASIS WITHIN ONE MONTH OF RECEIPT OF THE RESULTS OF THE NRR REVIEWS AND INDEPENDENT ASSESSMENTS OF THE EARTHQUAKE PROBABILITIES. DETAILED ANALYSIS MUST AWAIT THE COMPLETION OF WORK REQUESTED UNDER SD 77-17 AND SD 77-29.

COMMENTS

REFERENCE NUMBER: NRR 77-5 FIN # 04126 ASSIGNED TO: RSR CONTRACTOR: SRL
RES CONTACT: L. SHOTKIN USER CONTACT: P. NORIAN
DATE REQUESTED: 06/23/77 RESPONSE LTR DATE: 05/23/78 PROJECT START: 07/00/77
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

LOSS OF COOLANT ACCIDENT ANALYSIS COMPUTER PROGRAMS.

BASIS FOR NEED

IMPROVED LOCA COMPUTER PROGRAMS ARE NEEDED TO:

- (1) PERFORM AUDIT CALCULATIONS FOR PWRs AND BWRs.
- (2) ASSIST IN EVALUATION OF CURRENT LICENSING CONCERNS, E.G., UPPER HEAD TEMPERATURE, UPPER HEAD INJECTION, WESTINGHOUSE 2 LOOP PWRs.
- (3) EVALUATE POTENTIAL CHANGES IN PRESENT LICENSING REQUIREMENTS. A COMMISSION PAPER IS CURRENTLY IN PREPARATION WHICH WILL DISCUSS POSSIBLE CHANGES TO APPENDIX K.
- (4) PERFORM A STATISTICAL EVALUATION OF SIGNIFICANT PARAMETERS IN THE LOCA MODEL.
- (5) EVALUATION OF THE LICENSING SIGNIFICANCE OF EXPERIMENTAL RESULTS (SEMISCALE, LOFT, TWO LOOP TEST APPARATUS, STANDARD PROBLEM PROGRAM).

STATUS OF PROCESSING REQUEST FOR RESEARCH

(NUMBERED KEY REFERS TO ITEMS IN "BASIS FOR NEED" ABOVE).

- (1) THE WRAP-EM CODES ARE BEING USED AT SRL TO PERFORM AUDIT CALCULATIONS FOR NRR.
- (2) THE WORK UNDERWAY AT PNL ON COBRA IV (SEE NRR 76-23) IS SATISFYING THE NEED.
- (3) A DRAFT OF AN IN-HOUSE RECOMMENDATION HAS BEEN PREPARED.
- (4) A STUDY ON RELAP HAS BEEN COMPLETED BY SANDIA, AND A STUDY ON TRAC WILL BE UNDERWAY SHORTLY.
- (5) BOTH INEL AND SRL HAVE EXISTING TASKS TO COVER THIS NEED.

COMMENTS

REFERENCE NUMBER: NRR 77-7 FIN # B6281 ASSIGNED TO: SAFER CONTRACTOR: EG&G
 RES CONTACT: P. REED USER CONTACT: J. KLINE
 DATE REQUESTED: 07/28/77 RESPONSE LTR DATE: 05/25/78 PROJECT START:
 DATE NEEDED: FY 1980 USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

EVALUATION OF REMOTE SENSING TO MEET ENVIRONMENTAL INFORMATION NEEDS

BASIS FOR NEED

THERE IS A NEED FOR AN EVALUATION OF AERIAL PHOTOGRAPHY AND MODERN METHODS OF PHOTOINTERPRETATION FOR MEETING REGULATORY INFORMATION NEEDS FOR ALTERNATIVE SITE COMPARISONS, RECONNAISSANCE SURVEYS, TRANSMISSION CORRIDOR SURVEYS AND NEPA RESOURCE INVENTORIES FOR PREFERRED SITES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

USER NEED PREPARED.

COMMENTS

PROJECT NOT FUNDED BECAUSE OF LOWER FUNDING PRIORITY.

REFERENCE NUMBER: NRR 77-9 FIN # 6346 ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: P. REED USER CONTACT: C. HECKEY

DATE REQUESTED: 06/30/77 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: EARLY FY79 USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

ASSESSMENT OF THE SIGNIFICANCE OF NUCLEAR POWER STATION ENTRAINMENT EFFECTS ON PHYTOPLANKTON AND ZOOPLANKTON, WITH AN EVALUATION OF THE NEED FOR FUTURE MONITORING REQUIREMENTS.

BASIS FOR NEED

UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT OF 1969, NRC IS RESPONSIBLE FOR ASSESSING THE ENVIRONMENTAL EFFECTS OF NUCLEAR POWER STATION OPERATION ON AQUATIC RESOURCES WHICH ARE POTENTIALLY SUBJECT TO IMPACTION. TO THIS END, NRC HAS REQUIRED APPLICANTS AND LICENSEES TO CONDUCT BASELINE, PREOPERATIONAL, AND OPERATIONAL STUDIES WHICH FOCUS ON ONE OR MORE OF SEVERAL BIOTIC COMPONENTS OF AQUATIC ECOSYSTEMS IN THE VICINITY OF THE POWER STATIONS IN QUESTION. THE DATA GENERATED BY THESE STUDIES FORM THE BULK OF THE ECOLOGICAL INFORMATION WHICH IS USED BY THE NRC STAFF IN ASSESSING THE EFFECTS OF STATION OPERATION, AS REFLECTED IN THE CP AND OL STAGE ENVIRONMENTAL IMPACT STATEMENTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

DISCUSSION CONTINUING BETWEEN RES AND NRR STAFF TO DEFINE WORK SCOPE AND CONTRACTOR.

COMMENTS

NRR INDICATED LOW PRIORITY AND NEED FOR WORK UNIT RESULTS FROM PROJECTS FIN #B0165 AND B6298 WERE EVALUATED. PROJECT ON HOLD.

REFERENCE NUMBER: NRR 77-10* FIN # B6168 ASSIGNED TO: SAFER CONTRACTOR: MT. WEST
 B0164
 B6173 ORNL
 PENN. STATE U.

RES. CONTACT: C. PRICHARD USER CONTACT: M. KALTMAN

DATE REQUESTED: 07/14/77 RESPONSE LTR DATE: 04/12/78 PROJECT START: 10/01/79

DATE NEEDED: FY81 USER AGREEMENT DN: 04/12/78 PROJECT END:

IDENTIFICATION OF REQUEST

POST LICENSING STUDIES OF THE SOCIOECONOMIC IMPACTS OF NUCLEAR POWER PLANT SITING/SOCIAL IMPACTS - NPP SITING/ LAND VALUE CHANGES NEAR NPP'S.

BASIS FOR NEED

THERE IS A NEED FOR A SERIES OF TWELVE CASE STUDIES TO DESCRIBE AND EVALUATE THE IMPACTS OF NUCLEAR POWER PLANT SITING UNDER A WIDE VARIETY OF SOCIAL, ECONOMIC, AND GEOGRAPHICAL CONDITIONS. THE FOLLOWING THREE MAJOR STUDY TASKS HAVE BEEN IDENTIFIED: (1) SPECIFICATION OF METHODOLOGY WHICH ENCOMPASSES RESEARCH SAFEGUARDS, A MODEL OF SOCIAL CAUSALITY, A RESEARCH PROGRAM, AND A CLASSIFICATION SCHEME FOR EVALUATING THE SOCIAL SIGNIFICANCE OF IMPACTS; (2) ANALYSIS OF FINDINGS FROM THE STUDIES WITH REGARD TO BOTH THEIR SPECIFICITY AND GENERALITY; AND (3) CONSIDERATION OF IMPLICATIONS FOR INCREASING THE EFFICIENCY AND EFFECTIVENESS OF SOCIOECONOMIC IMPACT ASSESSMENT WITHIN THE CONTEXT OF NUCLEAR REACTOR LICENSING.

STATUS OF PROCESSING REQUEST FOR RESEARCH

REQUEST PARTIALLY COMPLETED. ADDITIONAL RESEARCH UNDERWAY.

COMMENTS

*SEE NRR79-12

DOCUMENTS ISSUED:

B0164 - NUREG/CR-0916, 07/79	B6173 - NUREG/CR-0454,
RIL #56, 07/25/79	NUREG/CR-1093, 02/80
	NUREG/CR-1215
	RIL #82, 02/80

REFERENCE NUMBER: NRR 77-11 FIN # A5216 ASSIGNED TO: SAFER CONTRACTOR: SANDIA
 RES CONTACT: R. ROBINSON USER CONTACT: M. ELLIOTT
 DATE REQUESTED: 07/19/77 RESPONSE LTR DATE: 01/31/78 PROJECT START: 02/15/78
 DATE NEEDED: END FY78 USER AGREEMENT ON: 02/21/78 PROJECT END:

IDENTIFICATION OF REQUEST

STUDY OF NUCLEAR POWER PLANT DESIGN CONCEPTS FOR SABOTAGE PROTECTION.

BASIS FOR NEED

TO IDENTIFY PERFORMANCE OBJECTIVES FOR FUTURE NUCLEAR POWER PLANT DESIGNS AND TO RECOMMEND DESIGN FEATURES AND CRITERIA WHICH WILL REDUCE THE VULNERABILITY OF NUCLEAR POWER PLANTS TO INDUSTRIAL SABOTAGE.

STATUS FOR PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

PROJECT ON-GOING. INTERIM REPORT (NUREG/CR-1245) WILL BE SUBMITTED JUNE 1, 1980.

REFERENCE NUMBER: NRR 77-12 FIN # ASSIGNED TO: SER CONTRACTOR:

RES CONTACT: J. MURPHY

USER CONTACT:

DATE REQUESTED: 07/27/77 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED: EARLY 77 USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

REQUEST FOR REVIEW ASSISTANCE

BASIS FOR NEED

TO ASSIST NRR IN REVIEWING THE DRAFT REPORT, "A PROBABILISTIC SEISMIC SAFETY ASSESSMENT OF THE DIABLO CANYON NUCLEAR POWER PLANT" BY A. H-S ANG AND N. M. NEWMARK, DATED JUNE 1977.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

THIS REPORT IS BEING PREPARED FOR NRC FOR NRR'S USE IN EVALUATING THE RISK ASSOCIATED WITH THE OPERATION OF THE DIABLO CANYON NUCLEAR POWER PLANT UNIT 1 FOR TWO YEARS UNDER AN INTERIM LICENSE. A COPY WAS PREVIOUSLY FORWARDED TO MR. JOSEPH A. MURPHY BY MR. JOHN F. STOLZ ON JUNE 29, 1977 WITH A REQUEST FOR PRELIMINARY COMMENTS. THIS REQUEST WAS ORALLY EXPANDED TO INCLUDE A REVIEW OF AMENDMENT 52 TO THE PG&E APPLICATION.

NRR EXPECTS THAT RES WILL PROVIDE PRELIMINARY COMMENTS BY EARLY AUGUST 1977. IT IS EXPECTED THAT FROM SUCH PRELIMINARY COMMENTS IT WILL BE POSSIBLE TO DETERMINE THE EXTENT OF FURTHER REVIEW THAT WILL BE REQUIRED.

A DRAFT VERSION OF AN SER REVIEWING AND EVALUATING AMENDMENT 52 WAS TRANSMITTED TO NRR ON 12/30/77.

REFERENCE NUMBER: NRR 77-13 FIN # A2059 ASSIGNED TO: SAFER CONTRACTOR: ANL
R&S CONTACT: J. FOULKE USER CONTACT: R. GOICHY
DATE REQUESTED: 08/04/77 RESPONSE LTR DATE: 02/08/78 PROJECT START: 01/01/78
DATE NEEDED: USER AGREEMENT ON: PROJECT END: CONTINUING

IDENTIFICATION OF REQUEST

DEVELOPMENT OF MODELS FOR ASSESSING RISK OF HEALTH EFFECTS AND LIFE-SHORTENING FROM THE URANIUM AND COAL FUEL CYCLES.

BASIS FOR NEED

IT IS ESSENTIAL TO THE REACTOR LICENSING PROCESS THAT THE HEALTH EFFECTS (MORBIDITY AND MORTALITY) CAN BE ASSESSED FOR BOTH FUEL CYCLES AS COMPLETELY AS CURRENT DATA PERMIT AND ON A COMPARABLE BASIS. THIS NEED BECAME CRITICALLY IMPORTANT AS A RESULT OF THE HARTSVILLE APPEALS BOARD DECISION OF JANUARY 25, 1977, REQUIRING THE NRC STAFF TO PROVIDE AN ADEQUATE COMPARISON OF HEALTH EFFECTS FROM THE COAL AND NUCLEAR FUEL CYCLES. IN ADDITION, IT IS BECOMING CLEAR THAT THE TREND IN PREPARING NEPA ESTIMATES OF ENVIRONMENTAL IMPACTS OF PROPOSED PLANTS AT SPECIFIC SITES AND ALTERNATIVE SITES AND ALTERNATIVE SOURCES (E.G. COAL) IS TO CONVERT CALCULATED POPULATION DOSE COMMITMENTS TO HEALTH EFFECTS. RESULTS OF THIS PROGRAM WILL PERMIT THE NRC STAFF TO REALISTICALLY EVALUATE THE HEALTH EFFECTS ON THE SITE SPECIFIC HUMAN POPULATIONS DUE TO EFFLUENTS FROM THE COAL AND NUCLEAR FUEL CYCLES, WHICH HAS HERETOFORE NOT BEEN POSSIBLE.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

RESPONSE LETTER CONFIRMED FUNDING FORMER NRR PROJECT.

<u>REFERENCE NUMBER:</u> NRE 77-14	<u>FIN #</u> A2016	<u>ASSIGNED TO:</u> RSR	<u>CONTRACTOR:</u> ANL
<u>RES CONTACT:</u> M. PICULESIMER		<u>USER CONTACT:</u> F. COFFMAN	
<u>DATE REQUESTED:</u> 08/04/77	<u>RESPONSE DATE:</u> 09/12/77	<u>PROJECT START:</u> 09/07/77	
	04/18/78	09/07/77	
<u>DATE NEEDED:</u> ASAP	<u>USER AGREEMENT ON:</u> 09/23/77	<u>PROJECT END:</u> 12/00/77	
	11/28/78		

IDENTIFICATION OF REQUEST

POST IRRADIATION EXAMINATION OF POINT BEACH UNIT #1 FAILED FUEL RGDS.

Basis for Need

TO ESTABLISH WHETHER PREVIOUSLY OBSERVED BAFFLE JOINT JETTING OF FAILED FOREIGN FUEL MAY BE GENERIC TO DOMESTIC REACTOR FUEL AND COULD AFFECT OPERATING FACILITIES IN THE UNITED STATES. THE NRR STAFF NEEDS TO HAVE A CLEAR UNDERSTANDING OF THE THERMAL-MECHANICAL STABILITY OF FAILED DOMESTIC LWR FUELS DURING NORMAL AND OFF-NORMAL REACTOR CONDITIONS. THE FOREIGN FUEL OBSERVATIONS INDICATE THAT THE STAFF LACKS INFORMATION NECESSARY TO ACHIEVE THIS UNDERSTANDING.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

THE FUEL ASSEMBLY WAS PICKED UP AT POINT BEACH ON 09/07/77 FOR TRANSPORT TO ANL FOR EXAMINATION. EXAMINATION STARTED DURING THE WEEK OF 09/14/77 AND WILL TAKE ABOUT TWO MONTHS. NRR AGREEMENT WITH PROJECT GIVEN ON 09/23/77.

THIS PROJECT WAS COMPLETED IN DECEMBER, 1977. THE FINAL REPORT (LETTER FORMAT) WAS RECEIVED IN MARCH, 1978 AND TRANSMITTED TO NRR. A LETTER REPORT FROM S. LEVINE TO E. CASE WAS TRANSMITTED ON 04/18/78.

DOCUMENTS ISSUED: NUREG/CR-1001, 06/79
NUREG/CR-0088, 05/78
NUREG/CR-0292, 06/78

REFERENCE NUMBER: NRR 77-16 FIN # B5865
B6610
B6275
A6293
B0436

ASSIGNED TO: RSR/SRR CONTRACTOR: UNIV. OF FLA.
INEL
ORNL
C. DEMR.

RES CONTACT: R. BUGCHI, W. VESELY
R. STURGES, R. ABBEY

USER CONTACT: C. LEAR

DATE REQUESTED: 10/26/77 RESPONSE LTR DATE: 05/31/78 PROJECT START:
06/06/80

DATE NEEDED: USER AGREEMENT CN: PROJECT END:

IDENTIFICATION OF REQUEST

PROBABILISTIC STUDIES OF FLOOD HAZARDS AND FLOODING EFFECTS;
EVALUATION OF MARGINS AVAILABLE IN FLOOD PROTECTION OF NUCLEAR POWER PLANTS.

BASIS FOR NEED

THERE IS A NEED TO SUPPLEMENT NRR'S METHODS AND CRITERIA FOR ANALYSIS OF FLOOD POTENTIAL AND FOR FLOOD PROTECTION BY PROVIDING ASSESSMENTS OF METHODOLOGY UNCERTAINTIES FOR APPLYING PROBABILISTIC METHODS TO PREDICTING SEVERE FLOODING EVENTS, AND THE RESIDUAL RISK ASSOCIATED WITH PRESENT FLOOD PROTECTION REQUIREMENTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

J. HARBOUR HAS THE LEAD IN FORMULATING A PROGRAM IN COORDINATION WITH PAS. A RESEARCH REVIEW GROUP MEETING IS SCHEDULED FOR THE MONTH OF MARCH, 1978.

COMMENTS

RES HAS PREPARED A SUGGESTED RESEARCH APPROACH THAT IS SCHEDULED FOR DISCUSSION IN THE METEOROLOGY/HYDROLOGY RESEARCH REVIEW GROUP IN APRIL, 1978.

REFERENCE NUMBER: NRR 77-17 FIN # A3208 ASSIGNED TO: RSR CONTRACTOR: BNL

RES CONTACT: J. MUSCARA USER CONTACT: B. LIAW

DATE REQUESTED: 09/07/77 RESPONSE LTR DATE: 04/21/78 PROJECT START: 09/00/77
05/22/78 07/12/78

DATE NEEDED: 08/12/78 USER AGREEMENT ON: 07/12/78 PROJECT END: 09/00/80

IDENTIFICATION OF REQUEST

EXPERIMENTAL DETERMINATION OF SUSCEPTIBILITY OF STRESS CORROSION CRACKING OF INCONEL-600 TUBING.

Basis for Need

RESEARCH IS NEEDED TO PROVIDE A BETTER UNDERSTANDING OF BASIC MECHANISMS AND FACTORS OPERATIVE IN THE STRESS CORROSION CRACKING OF INCONEL 600 STEAM GENERATOR TUBING.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

WORK IS UNDERWAY AT BNL

REQUEST FOR MODIFICATION OF RESEARCH PROGRAM RECEIVED 07/12/78.

REFERENCE NUMBER: NRR 77-18 FIN # A9128 ASSIGNED TO: RSR CONTRACTOR: LLL
RES CONTACT: J. RICHARDSON USER CONTACT: C. HOFMAYER
DATE REQUESTED: 11/11/77 RESPONSE LTR DATE: 05/05/78 PROJECT START: 04/01/78
DATE NEEDED: FY78-79 USER AGREEMENT ON: 04/03/79 PROJECT END: 10/01/80

IDENTIFICATION OF REQUEST

DYNAMIC TESTING OF OPERATING REACTORS.

BASIS FOR NEED

UNDER THE SEISMIC REEVALUATION OF OPERATING PLANTS, IT WILL BE NECESSARY TO QUALIFY MANY PLANTS FOR HIGHER GROUND ACCELERATION LEVELS THAN THEY WERE PREVIOUSLY DESIGNED FOR. SOME PLANTS HAD NO SEISMIC DESIGN CRITERIA. IN OTHER CASES, THE EXPECTED GROUND ACCELERATIONS AT THE SITE HAVE INCREASED DUE TO THE DISCOVERY OF NEARBY FAULTING IN ADDITION TO THAT WHICH WAS KNOWN TO EXIST AT THE TIME OF THE DESIGN OF THE PLANT. IT WILL BE VERY DIFFICULT AND EXPENSIVE TO QUALIFY THESE PLANTS UTILIZING THE CONSERVATIVE SEISMIC ANALYSIS AND DESIGN CRITERIA FOR NEW NUCLEAR POWER PLANTS. THIS PROGRAM PROVIDES AN EXPERIMENTAL OPTION FOR ASSESSING SEISMIC VULNERABILITY.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

THREE NUREGS ARE BEING PUBLISHED, TWO KILS ARE IN PREPARATION AND ADDITIONAL REPORTS ARE UNDER REVIEW AND ARE EXPECTED TO BE RELEASED AS NUREGS.

REFERENCE NUMBER: NRR 77-19 FIN # A3210 ASSIGNED TO: SAFER CONTRACTOR: BNL
RES CONTACT: W. MURPHY USER CONTACT:
DATE REQUESTED: 09/23/77 RESPONSE LTR DATE: 01/31/78 PROJECT START: 11/01/77
DATE NEEDED: USER AGREEMENT ON: 02/21/78 PROJECT END: 09/30/78

IDENTIFICATION OF REQUEST

PHYSICAL PROTECTION COMPUTER MODELS/ASSISTANCE-PHYSICAL PROTECTION ASSESSMENTS.

BASIS FOR NEED

PHYSICAL PROTECTION MODELS ARE NEEDED FOR REGULATORY SUPPORT. THERE IS A NEED TO:

- (1) SPONSOR A WORKING GROUP TO DEVELOP A SET OF NRC - ACCEPTABLE BARRIER PENETRATION TIMES.
- (2) PROVIDE NRR WITH SUPPORT IN THE FORM OF AN EXPERT PROGRAMMER TO INSTALL, TEST, DEBUG AND MODIFY THE TSO AND EASI MODELS DURING AN INITIAL TEST AND EVALUATION PHASE.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

REFERENCE NUMBER: NRR 77-20 FIN # B2281 ASSIGNED TO: SAFER CONTRACTOR: PNL
RES CONTACT: D. SOLBERG USER CONTACT: R. BANGART
DATE REQUESTED: 01/16/78 RESPONSE LTR DATE: 06/02/78 PROJECT START: 06/12/78
DATE NEEDED: 01/00/79 USER AGREEMENT ON: 06/25/78 PROJECT END: 09/30/82

IDENTIFICATION OF REQUEST

DECONTAMINATION EFFECTS ON RADWASTE SYSTEMS.
TO ESTABLISH THE CAPABILITY OF RADIOACTIVE WASTE MANAGEMENT SYSTEM TO PROCESS RADIOACTIVE
WASTE THAT MIGHT BE PRODUCED BY DECONTAMINATION AND DECOMMISSION. LIGHT WATER REACTORS.

BASIS FOR NEED

DECOMMISSIONING OF A LIGHT WATER REACTOR MAY REQUIRE SEVERAL YEARS OF INTERMITTENT
DECOMMISSIONING OPERATIONS PRIOR TO COMMENCING ACTUAL DECOMMISSIONING WORK. NRR IS RESPONSIBLE
FOR EVALUATING THE CAPABILITY OF RADIOACTIVE WASTE MANAGEMENT SYSTEMS TO MEET APPLICABLE
REGULATIONS. HOWEVER, THE ACCEPTANCE CRITERIA AND REVIEW PROCEDURES IN THE STANDARD REVIEW
PLANS FOR REVIEWING RADIOACTIVE WASTE MANAGEMENT SYSTEMS DO NOT SPECIFICALLY ADDRESS MAJOR
LOOP DECONTAMINATION, STEAM GENERATOR CHEMICAL CLEANING, OR REACTOR DECOMMISSIONING. THE
LACK OF SPECIFIC GUIDANCE AND DESIGN CRITERIA IN THESE AREAS HAS BEEN IDENTIFIED BY THE ACRS
ON SEVERAL OCCASIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

WORK UNDER ORIGINAL WORK REQUEST HAS BEEN COMPLETED AND A REPORT ISSUED.

COMMENTS

DOCUMENT ISSUED: NUREG/CR-0986

REFERENCE NUMBER: NRR 77-21 FIN # A0136 ASSIGNED TO: RSR CONTRACTOR: SANDIA
A1216 LLL/UCAL BERKLEY

RES CONTACT: M. VAGING USER CONTACT: S. HOU

DATE REQUESTED: 01/12/78 RESPONSE LTR DATE: 05/19/78 PROJECT START: 08/78

DATE NEEDED: FY 81 USER AGREEMENT CN: 11/26/79 PROJECT END: 09/30/81

IDENTIFICATION OF REQUEST

PIPE - TO PIPE IMPACT FOLLOWING PIPE RUPTURE.
PROTECTION AGAINST PIPE RUPTURE.

BASIS FOR NEED

TO ASSURE THAT OVERALL SAFETY SYSTEMS HAVE THE PROPER BALANCE BETWEEN THE STRUCTURAL RESTRAINT
NECESSARY TO ABSORB ACCIDENT LOADS AND THE FLEXIBILITY DESIRABLE DURING NORMAL OPERATION.

STATUS OF PROCESSING REQUEST FOR RESEARCH

A SCOPING STUDY IS REQUIRED BEFORE THE PROJECT CAN BE DEFINED. THIS IS EXPECTED
TO BE COMPLETED BY MID-SUMMER, 1978.

COMMENTS

REFERENCE NUMBER: NRR 77-22 FIN # A3210 ASSIGNED TO: RSR CONTRACTOR: BNL

PES CONTACT: H. SULLIVAN

USER CONTACT:

DATE REQUESTED: 12/29/77 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

MODIFICATIONS TO SEMISCALE MOD 3 DOWNCOMER DESIGN FOR UHI SIMULATION.

BASIS FOR NEED

A NEED HAS BEEN ARGUED FOR TWO EXTERNAL DOWNCOMER PIPES ON THE SEMISCALE MOD 3 VESSEL TO BETTER REPRESENT EXPECTED HYDRAULIC BEHAVIOR IN A PROTOTYPIC UHI PLANT.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

THE TWO-PIPE DOWNCOMER CONFIGURATION IS IN THE FINAL DESIGN PHASE. TESTING WITH THIS CONFIGURATION WILL BEGIN AFTER COMPLETION OF THE SINGLE-PIPE UHI TESTS ON OR ABOUT MAY, 1979.

REFERENCE NUMBER: NRR 77-23 FIN # B6298 ASSIGNED TO: SAFER CONTRACTOR: MYERDA/NYU
 RES CONTACT: P. REED USER CONTACT: H. BERKSON
 DATE REQUESTED: 11/28/77 RESPONSE LTR DATE: 02/27/78 PROJECT START: 12/01/78
 DATE NEEDED: 12/31/80 USER AGREEMENT ON: 11/01/78 PROJECT END: 12/31/80

IDENTIFICATION OF REQUEST

SOURCES OF MORTALITY TO ENTRAINED ORGANISMS DURING PASSAGE THROUGH CONDENSER TUBES.

BASIS FOR NEED

TO PROVIDE THE NRR STAFF WITH THE INDEPENDENT ASSESSMENT CAPABILITY TO IDENTIFY SOURCES OF MORTALITY TO ENTRAINED ORGANISMS DURING PASSAGE THROUGH CONDENSER TUBES -- IN REVIEWING ENVIRONMENT IMPACT STATEMENTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

WORK SUBCONTRACTED TO NEW YORK UNIVERSITY

REFERENCE NUMBER: NRR 77-24 FIN # B6288 ASSIGNED TO: RSR CONTRACTOR: UNIV. WASHINGTON
IES CONTACT: M. VAGINS USER CONTACT: R. GAMBLE/R. JOHNSON
DATE REQUESTED: 12/20/77 RESPONSE LTR DATE: 04/20/78 PROJECT START: 06/78
05/26/78
DATE NEEDED: USER AGREEMENT ON: 08/01/78 PROJECT END: 01/80

IDENTIFICATION OF REQUEST

EXPERIMENTAL VERIFICATION OF THE TEARING STABILITY CONCEPT FOR APPLICATION AS A MATERIAL UPPER SHELF FAILURE CRITERION.

BASIS FOR NEED

RESULTS FROM REACTOR VESSEL SURVEILLANCE PROGRAMS INDICATE THAT UP TO APPROXIMATELY 20 OPERATING PWR WILL HAVE BEEN IN THE MATERIALS WITH MARGINAL TOUGHNESS, RELATIVE TO THE REQUIREMENTS OF APPENDICES G AND H OF 10 CFR PART 50, AFTER COMPARATIVELY SHORT PERIODS OF OPERATION. THE REQUESTED EXPERIMENTAL VERIFICATION IS CONSIDERED A NECESSARY PART OF THE OVERALL EFFORT TO ESTABLISH AN ADEQUATE FOUNDATION FOR EVALUATING LOW UPPER SHELF MATERIALS AND DEFINING A LICENSING CRITERION TO ENSURE THAT ADEQUATE SAFETY MARGINS FOR NUCLEAR REACTOR VESSELS ARE MAINTAINED DURING OPERATION.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

WORK IS AT WASHINGTON U. AT ST. LOUIS.

REFERENCE NUMBER: NRR 77-25 FIN # B3418 ASSIGNED TO: SAFER CONTRACTOR: ORNL

RES CONTACT: J. FOULKE

USER CONTACT: R. GECKLER

DATE REQUESTED: 12/29/77 RESPONSE LTR DATE: 04/11/78 PROJECT START: 04/01/78
09/21/79

DATE NEEDED: SPRING 79 USER AGREEMENT ON: 11/28/78 PROJECT END: CONTINUING
09/27/79

IDENTIFICATION OF REQUEST

PATHOGENIC AMOEBA IN CLOSED CYCLE COOLING SYSTEMS OF OPERATING POWER STATIONS.

BASIS FOR NEED

RESEARCH CONDUCTED DURING THE PAST SEVERAL YEARS HAS LED TO THE ISOLATION OF PATHOGENIC AMOEBA WHICH HAVE BEEN IDENTIFIED AS THE BIOLOGICAL AGENT OF PRIMARY AMOEBIC MENINGOENCEPHALITIS (PAME). THE RESEARCH CONDUCTED TO DATE INDICATES THAT THESE PATHOGENIC AMOEBA ARE THERMOPHILIC. IT APPEARS THAT THE ARTIFICIAL HEATING OF WATER BODIES BY POWER PLANTS FACILITATES THE EMERGENCE AND PROPAGATION OF THE PATHOGENIC VARIETY OF THESE AMOEBA. THE POTENTIAL IMPACT ON RECREATIONAL USES OF COOLING LAKES AND PONDS AND THE IMPACT OF WIDESPREAD AEROSOL DRIFT FROM COOLING TOWERS AND SPRAY CANALS IS UNKNOWN. A SCREENING STUDY IS NEEDED BECAUSE ARTIFICIAL HEATING OF WATER BY POWER PLANTS APPEARS TO FACILITATE THE EMERGENCE AND PROPAGATION OF FREE-LIVING AMOEBA WHICH ARE PATHOGENIC FOR MAN.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

EXPANSION OF SCOPE TO LEGIONNAIRES' DISEASE BACTERIUM.

REFERENCE NUMBER: NRR 78-1 FIN # A3217 ASSIGNED TO: SAFER CONTRACTOR: BNL

RES CONTACT: E. RICHARD

USER CONTACT: W. ELLIOTT

DATE REQUESTED: 01/18/78 RESPONSE LTR DATE: 06/22/78 PROJECT START:
03/13/78

DATE NEEDED: ASAP USER AGREEMENT ON: 07/27/78 PROJECT END:

IDENTIFICATION OF REQUEST

DETECTION OF PERSONS UNDER ABNORMAL CONDITIONS OF EMOTIONAL STRESS.

BASIS FOR NEED

PROVIDE AN ALTERNATE APPROACH AT ENTRY PORTAL STATIONS, FOR DETECTION OF CONTRABAND.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NKR 78-2 ERM # B0423 ASSIGNED TO: SAFER CONTRACTOR: ORNL
RES CONTACT: P. REED USER CONTACT: C. BILLUPS
DATE REQUESTED: 02/02/78 RESPONSE LTR DATE: 06/22/78 PROJECT START: 05/18/76
DATE NEEDED: FY 80 USER AGREEMENT ON: 07/07/78 PROJECT END: 09/30/80
*

IDENTIFICATION OF REQUEST

CONFIRMATORY ASSESSMENT OF IMPACTS ON HUDSON RIVER WHITE PERCH POPULATION.

BASIS FOR NEED

LARGE IMPINGEMENT LOSSES OF WHITE PERCH HAVE BEEN OBSERVED AT THE INDIAN POINT STATION OVER THE LAST FOUR YEARS. LOSSES IN 1977 ARE DOUBLE, OR POSSIBLY TRIPLE, THOSE PREVIOUSLY OBSERVED. IN THE INDIAN POINT UNIT 3 FES, THE STAFF CONCLUDED THAT, WITH THE PROPOSED ONCE-THROUGH COOLING, IMPINGEMENT MAY HAVE A SIGNIFICANT IMPACT ON THE WHITE PERCH POPULATION. EXTENSIVE IMPINGEMENT DATA AND POPULATION ABUNDANCE DATA ARE NOW AVAILABLE TO ALLOW A DIRECT ESTIMATE OF THE ANNUAL CROPPING RATES AND A CONFIRMATORY ASSESSMENT OF THE IMPACT.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

*SECY-78-622, DEVELOPING WORK SCOPE FOR FY 81-82.
SEE NRR 78-11

REFERENCE NUMBER: NRR 78-3 FIN # ASSIGNED TO: SRR CONTRACTOR:
RES CONTACT: USER CONTACT:
DATE REQUESTED: 02/13/78 RESPONSE LTR DATE: PROJECT START:
DATE NEEDED: FY 79-80 USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

DETERMINE ALLOWABLE OUTAGE TIMES AND OPTIMUM COMPONENT TEST FREQUENCIES IN NUCLEAR POWER PLANTS.

BASIS FOR NEED

NRR DOES NOT PRESENTLY HAVE A CAPABILITY TO PERFORM REACTOR PHYSICS CALCULATIONS CONSISTENT WITH THOSE IT POSSESSES IN OTHER AREAS, E.G. LOCA AND CONTAINMENT ANALYSIS. A PROGRAM TO DEVELOP THIS CAPABILITY IS DESCRIBED IN PROPOSED TASK ACTION PLAN B-21. WITHOUT THESE WE ARE UNABLE TO EVALUATE FULLY A NUMBER OF GENERIC PROBLEMS CONNECTED WITH THE LICENSING OF LIGHT WATER REACTORS.

TWO SPECIFICALLY IDENTIFIED SHORTCOMINGS ARE FUEL BURNUP SIMULATION AND THREE-DIMENSIONAL REACTOR CORE TRANSIENT SIMULATION.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 78-4 FIN # A3212 ASSIGNED TO: KSR CONTRACTOR: BNL

RES CONTACT: S. FABIC

USER CONTACT: DAN FIENO

DATE REQUESTED: 03/06/78 RESPONSE LTR DATE: 05/04/78 PROJECT START:
05/15/78

DATE NEEDED: END OF FY 79 USER AGREEMENT ON: * PROJECT END:

IDENTIFICATION OF REQUEST

REQUIREMENTS FOR REACTOR PHYSICS ANALYSIS COMPUTER PROGRAMS.

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

* SECY 78-622.

REFERENCE NUMBER: NRR 78-5* FIN # B0189
B0410 ASSIGNED TO: SAFER CONTRACTOR: GRNL

RES CONTACT: J. FOULKE

USER CONTACT: S. ACHARYA

DATE REQUESTED: 03/17/78 RESPONSE LTR DATE: 11/16/78 PROJECT START: 02/01/76
07/01/77

DATE NEEDED: USER AGREEMENT ON: PROJECT END: CONTINUING

IDENTIFICATION OF REQUEST

RADIATION DOSE ESTIMATION.

BASIS FOR NEED

TO PROVIDE A REALISTIC ESTIMATION OF RADIATION EXPOSURE AND HEALTH EFFECTS FOR
GENERIC AND SPECIFIC SITES AND ESTIMATES OF EXPOSURE AMONG SPECIFIC AGE GROUPS
IN RESPONDING TO QUESTIONS ASSOCIATED WITH LICENSING ACTIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

THE REQUEST FOR RESEARCH CONSTITUTED AN ENDORSEMENT OF TWO ON-GOING PROJECTS.

* SEE SD 77-21

DOCUMENTS ISSUED:

B0188 - NUREG/CR-0494, 04/79
NUREG/CR-0115
RIL 35, 09/15/78

REFERENCE NUMBER: NRR 78-6 FIN # A1226 ASSIGNED TO: SRR CONTRACTOR: SANDIA

RES CONTACT: R. DISALVO USER CONTACT: E. IMBRO

DATE REQUESTED: 02/24/78 RESPONSE LTR DATE: 04/17/78 PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

EVALUATION OF ALTERNATIVE PROVISIONS FOR ASSURING SAFE SHUTDOWN
AND COOLDOWN FUNCTIONS OF REACTOR PLANTS.*

BASIS FOR NEED

TO PROVIDE SD AND NRR WITH A BASIS FOR DEVELOPING REGULATORY GUIDELINES FOR FUTURE
PLANTS, WITH RESPECT TO ALTERNATIVE PROVISIONS FOR ENSURING SAFE SHUTDOWN AND COOL-
DOWN FUNCTIONS OF REACTOR PLANTS CONSIDERING A VARIETY OF EMERGENCY CONDITIONS NOT
INVOLVING A LOCA.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

*COSPONSORED BY SD AND CROSS-REFERENCED AS SD 78-6.

REFERENCE NUMBER: NRR 78-7 FIN # B2072 ASSIGNED TO: SAFER CONTRACTOR: CATHOLIC U.
PNL

RES CONTACT: K. KIM

USER CONTACT:

DATE REQUESTED: 03/23/78 RESPONSE LTR DATE: PROJECT START: 10/01/77

DATE NEEDED: USER AGREEMENT ON: 09/29/78 PROJECT END: 09/30/80
03/23/78

IDENTIFICATION OF REQUEST

NUCLEAR POWER PLANT ENVIRONMENTAL MONITORING.
EVALUATION OF ECOSYSTEM SIMULATION MODELS OR TOOLS FOR
CONFIRMATORY ASSESSMENT OF POWER PLANT IMPACTS.

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

DOCUMENTS ISSUED: NUREG/CR-0631, 08/79

REFERENCE NUMBER: NRR 78-8 F.N. # B2282 B665; ASSIGNED TO: SAFER CONTRACTOR: PNL RPI

RES CONTACT: J. FOULKE

USER CONTACT: S. BLOCK

DATE REQUESTED: 04/03/78 RESPONSE LTR DATE: 06/26/78 PROJECT START: 06/01/78
08/03/78

DATE RECEIVED: USER AGREEMENT ON: 07/12/78 PROJECT END: 08/21/78

IDENTIFICATION OF REQUEST

STUDIES TO DETERMINE CAPABILITY OF EXISTING PERSONNEL NEUTRON DOSIMETRY SYSTEMS AT OPERATING NUCLEAR POWER REACTORS TO MONITOR REACTOR NEUTRON ENVIRONMENTS.

BASIS FOR NEED

THERE IS A NEED TO EVALUATE THE ADEQUACY OF PRESENT NEUTRON MONITORING TECHNIQUES AT REACTOR SITES, BY CHARACTERIZING THE NEUTRON SPECTRAL DISTRIBUTION IN ORDER TO DETERMINE THE DOSE EQUIVALENT RATES AT THESE LOCATIONS SO THAT OCCUPATIONAL DOSE ESTIMATES, PROVIDED BY THE PERSONNEL NEUTRON DOSIMETER, CAN BE COMPARED WITH THE "TRUE" THEORETICAL DOSE AS DETERMINED BY THE NEUTRON SPECTRUM AND RESPECTIVE DOSE RATE PER UNIT FLUX FOR EACH ENERGY INTERVAL.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

REFERENCE NUMBER: NRR 78-9 FIN # 80120 ASSIGNED TO: RSR CONTRACTOR: ORNL
RES CONTACT: R. SCHAMBERGER USER CONTACT: G. KUZMYEZ
DATE REQUESTED: 05/01/78 RESPONSE LTR DATE: 05/26/78 PROJECT START: 1978
DATE NEEDED: USER AGREEMENT ON: 11/28/78 PROJECT END: 04/30/80

IDENTIFICATION OF REQUEST

ASSISTANCE IN EVALUATING AND CONFIRMING ECCS ANALYSIS FOR
FORT ST. VRAIN.

BASIS FOR NEED

NRR REQUIRES ANALYSIS OF THE EMERGENCY CORE COOLING SYSTEM FOR THE FORT ST. VRAIN REACTOR, WHICH IS UNDERGOING POWER ASCENSION TESTING AND WAS AUTHORIZED ON OCTOBER 28, 1977, BY LICENSE AMENDMENT NO. 18 TO PROCEED TO A POWER LEVEL OF 70 PERCENT OF RATED THERMAL POWER. THE SAFETY EVALUATION REPORT SUPPORTING THIS AMENDMENT IDENTIFIED UNCERTAINTIES IN THE PRESENT MODELS FOR EMERGENCY CORE COOLING ANALYSIS THAT WILL HAVE TO BE EVALUATED "...BEFORE THE REACTOR IS OPERATED AT POWER LEVELS ABOVE 70 PERCENT."

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

DOCUMENTS ISSUED: NUREG/CR-0056, 10/78
NUREG/CR-0256, 10/78
NUREG/CR-0592, 02/79
NUREG/CR-1091, 11/79

REFERENCE NUMBER: NRR 78-10 FIN # B30J2 ASSIGNED TO: SRR/RSR CONTRACTOR: ETEC
RFS CONTACT: M. STOLZENBERG USER CONTACT: A. THADANI
DATE REQUESTED: 05/10/78 RESPONSE LTR DATE: 08/25/78 PROJECT START: CY 78
DATE NEEDED: USER AGREEMENT ON: PROJECT END: CY 78

IDENTIFICATION OF REQUEST

BEHAVIOR OF THE PRESSURIZER SAFETY RELIEF VALVES DURING
SUBCOOLED DISCHARGES.

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

PROGRAM COMPLETED (LITERATURE SURVEY) AND A REPORT ISSUED.

DOCUMENT ISSUED: NUREG/CR-0687, 09/79

REFERENCE NUMBER: NRR 78-11 FIN # B0165 ASSIGNED TO: SAFER CONTRACTOR: ORNL
RES CONTACT: P. REED USER CONTACT: C. BILLUPS
DATE REQUESTED: 05/30/78 RESPONSE LTR DATE: 09/18/78 PROJECT START: 06/75
DATE NEEDED: FY 81 USER AGREEMENT ON: *09/01/78 PROJECT END: 09/30/80

IDENTIFICATION OF REQUEST

METHODS TO ASSESS IMPACTS ON STRIPED BASS

BASIS FOR NEED

THE NRR STAFF REQUIRES ADDITIONAL TECHNICAL INFORMATION TO EVALUATE THE LICENSEE'S METHODS WHICH ARE SEEMINGLY IN A CONTINUOUS MODE OF REVISION. THIS IS CHARACTERISTIC OF THE RAPIDLY DEVELOPING STATE-OF-THE-ART OF FISHERY POPULATION MODELING. IN ORDER TO MAKE AN INDEPENDENT ANALYSIS OF THE IMPACT, THE STAFF MUST (1) STAY ABREAST OF THE LICENSEE'S APPROACH IN ORDER TO IDENTIFY ANY DEFICIENCIES IN THE PROPOSED METHODOLOGY, AND (2) INVESTIGATE AND APPLY METHODS TO CORRECT FOR DEFICIENCIES, ESPECIALLY WITH REGARD TO CURRENT ISSUES IN CONTROVERSY (E.G., CROPPING FACTORS, COMPENSATORY MECHANISMS, AND CUMULATIVE POWER PLANT EFFECTS ON THE CONTRIBUTION OF HUDSON RIVER STRIPED BASS TO THE ATLANTIC COASTAL FISHERY).

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

* SECY-78-622; DEVELOPING WORK SCOPE TO COMBINE NEEDS OF NRR 78-11 AND 78-2 INTO ONE PROGRAM FOR FY-82.

DOCUMENTS ISSUED: NUREG/CR-0639, 02/79
NUREG/CR-0638, 04/79

REFERENCE NUMBER: NRR 78-12* FIN # A3212 ASSIGNED TO: RSR CONTRACTOR: BNL

RES CONTACT: S. FABIC

USER CONTACT: D. FIENO

DATE REQUESTED: 05/15/78 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

REQUIREMENTS FOR REACTOR PHYSICS ANALYSIS COMPUTER PROGRAM.

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

* SEE NRR 78-4

REFERENCE NUMBER: NRR 78-13 FIN # B6207
A1010 ASSIGNED TO: RSR CONTRACTOR: APPLIED PHYSICS
SANDIA

RES CONTACT: R. FIET

USER CONTACT: G. HARRISON

DATE REQUESTED: 06/01/78 RESPONSE LTR DATE: PROJECT START: CY 78

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

ACCELERATION OF VERIFICATION TESTING OF VERTICAL AND HORIZONTAL CABLE TRAY FIRE PROTECTION SYSTEMS.

BASIS FOR NEED

NRR CONSIDERED IT IMPORTANT AND OF GENERAL APPLICABILITY TO HAVE CERTAIN FIRE SUPPRESSION SYSTEMS PERFORMANCES VERIFIED ON AN ACCELERATED SCHEDULE VIA FULL SCALE FIRE TESTS INVOLVING HORIZONTAL AND VERTICAL CABLE TRAYS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 78-14* FIN #

ASSIGNED TO:

CONTRACTOR:

RES CONTACT:

USER CONTACT:

DATE REQUESTED: 07/12/78 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

EVALUATION OF GENERAL EMERGENCY BASIS AND RISK OF A REPRESSURIZED SYSTEM IF
USED AS A PRIMARY MEANS FOR COMBUSTIBLE GAS CONTROL FOLLOWING A LOCA.

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

*SEE S2 78-9

REFERENCE NUMBER: NRR 78-15 FIN # B2097 ASSIGNED TO: RSR CONTRACTOR: SNWL
 RES CONTACT: J. MUSCARA USER CONTACT: B. D. LIAW
 DATE REQUESTED: 06/27/78 RESPONSE LTR DATE: 07/18/79 PROJECT START: 09/79
 DATE NEEDED: USER AGREEMENT CN: 08/10/79 PROJECT END: 08/30/80

IDENTIFICATION OF REQUEST

CONFIRMATORY RESEARCH STUDY OF A REPLACED STEAM GENERATOR FOR VARIOUS CAUSES AND FORMS OF DEGRADATION.

BASIS FOR NEED

DUE TO THE NUMBER OF PWR FACILITIES WHICH HAVE EXPERIENCED ONE FORM OR ANOTHER OF STEAM GENERATOR TUBE DEGRADATION AND THE RARE OPPORTUNITY OF HAVING A STEAM GENERATOR AVAILABLE WHICH CONTAINS MOST OF THE KNOWN DEFECT TYPES, THIS RESEARCH PROGRAM IS REQUESTED TO PROVIDE INFORMATION ON THE ADEQUACY OF CURRENT LICENSING PRACTICE WITH RESPECT TO PWR STEAM GENERATORS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETE.

COMMENTS

REFERENCE NUMBER: NRR 78-15 FIN # 80430 ASSIGNED TO: RSR CONTRACTOR: ORNL
R'S CONTACT: W. FARMER USER CONTACT: L. PHILLIPS
DATE REQUESTED: 11/02/78 RESPONSE LTR DATE: NONE PROJECT START: 11/78
DATE NEEDED: USER AGREEMENT ON: 01/05/79 PROJECT END:

IDENTIFICATION OF REQUEST

INDEPENDENT ANALYSIS OF THE OSCILLATORY BEHAVIOR OF THE FT. ST. VRAIN REACTOR.

BASIS FOR NEED

THE SUPPORT OF ORNL RESEARCH IN MAKING AN ASSESSMENT OF THE DATA FROM FT. ST. VRAIN, STRENGTHENS THE NRR STAFF'S INDEPENDENT APPRAISAL OF THE CAUSE TO POTENTIAL EFFECTS OF THE OBSERVED OSCILLATORY BEHAVIOR AND ANY CORRECTIVE MEASURES THERETO.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NPR 78-17 EFN # B6706 ASSIGNED TO: RSR CONTRACTOR: BCL
RES CONTACT: R. SHERRY USER CONTACT: L. SOFFER
DATE REQUESTED: 08/07/78 RESPONSE LTR DATE: 08/07/79 PROJECT START: 09/28/79
DATE NEEDED: USER AGREEMENT ON: 09/27/79 PROJECT END: 09/30/80

IDENTIFICATION OF REQUEST

IODINE TRANSPORT MECHANISMS UNDER STEAM GENERATOR TUBE FAILURE CONDITIONS.

BASIS FOR NEED

THERE IS A NEED TO OBTAIN FURTHER ANALYSES AND DATA CONCERNING THE AMOUNT OF ATOMIZATION OF THE PRIMARY COOLANT AND THE POTENTIAL FOR IODINE TRANSPORT VIA AEROSOLIZATION UNDER STEAM GENERATOR TUBE FAILURE ACCIDENT CONDITIONS TO DETERMINE THE VALIDITY OF THE DEFACI MODEL. THE PROPOSED RESEARCH CONSTITUTES A MAJOR PORTION OF THE STAFF'S PLANNED ACTION TO RESOLVE GENERIC ISSUE B-7, "SECONDARY SIDE ACCIDENT CONSEQUENCE MODELING".

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

RESEARCH PROGRAM IS APPROXIMATELY ONE-HALF COMPLETED.

REFERENCE NUMBER: NRR 78-18 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT:

USER CONTACT:

DATE REQUESTED: 11/11/77 RES: VSE LTR DATE:

PROJECT START:

DATE NEEDED: USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

STATISTICAL HYDROLOGIC MODELS

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 78-19 FIN # A7210 ASSIGNED TO: SAFER CONTRACTOR: LASL
RES CONTACT: E. RICHARD USER CONTACT: V. DELISO
DATE REQUESTED: 09/23/77 RESPONSE LTR DATE: 12/11/78 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

DETECTION OF HIGH EXPLOSIVES EMPLOYING CHEMILUMINESCENCE REACTIONS

BASIS FOR NFO

THE NRR LICENSING STAFF NEEDS INFORMATION WHICH INDICATES WHETHER OR NOT THE DETECTION OF EXPLOSIVES EMPLOYING CHEMILUMINESCENCE REACTIONS IS A FEASIBLE METHOD FOR DETECTING EXPLOSIVES EITHER ON A PERSON OR IN A PACKAGE SO THAT SUCH A DANGER TO THE PLANT OR THE HEALTH AND SAFETY OF THE PUBLIC DUE TO SABOTAGE CAN BE ELIMINATED.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 79-1 FIN : 44086 ASSIGNED TO: RSR CONTRACTOR: BNL
RES CONTACT: D. REIFF USER CONTACT: R. BOSNAK
DATE REQUESTED: 01/05/79 RESPONSE LTR DATE: 03/27/79 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: 03/19/79 PROJECT END: 09/30/85

IDENTIFICATION OF REQUEST

VERIFICATION OF PIPING STRUCTURES ANALYSIS COMPUTER PROGRAMS

BASIS FOR NEED

NRR REQUIRES ASSISTANCE IN THE EVALUATION AND VERIFICATION OF VARIOUS STRUCTURAL COMPUTER PROGRAMS PRESENTLY USED IN THE NUCLEAR INDUSTRY FOR THE DESIGN OF NUCLEAR PIPING SYSTEMS AND COMPONENTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 79-2 FIN # A6048 ASSIGNED TO: RSR CONTRACTOR: INEL
RES CONTACT: G. MCPHERSON USER CONTACT: L. PHILLIPS
DATE REQUESTED: 01/17/79 RESPONSE LTR DATE: PROJECT START: 01/17/79
DATE NEEDED: USER AGREEMENT ON: 11/28/78 PROJECT END: INDEFINITE

IDENTIFICATION OF REQUEST

ECC STANDARD PROBLEM PROGRAM

BASIS FOR NEED

PROVIDE ANALYTICAL SUPPORT NECESSARY TO EVALUATE THE ACCURACY OF LOCA AND SPECIAL EFFECTS TEST MODELS USED TO PREDICT THE DATA OBTAINED FROM SELECTED STANDARD PROBLEMS AND IN THE PREPARATION OF COMPARISON REPORTS FOR ALL PARTICIPANTS IN THE U.S. AND INTERNATIONAL STANDARD PROBLEM PROGRAMS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 79-3 FIN # B6652 ASSIGNED TO: SAFER CONTRACTOR: DREXEL U.
RES CONTACT: J. FOULKE USER CONTACT: W. BRITZ
DATE REQUESTED: 01/31/79 RESPONSE LTR DATE: * PROJECT START: 07/15/78
DATE NEEDED: USER AGREEMENT ON: * PROJECT END: CONTINUING

IDENTIFICATION OF REQUEST

ENVIRONMENTAL MONITORING WITH THERMOLUMINESCENT DOSIMETERS (TLDS)

BASIS FOR NEED

NRR REQUESTS A STUDY TO DEVELOP A SENSITIVE STATISTICAL METHODOLOGY TO PERMIT ACCURATE INTERPRETATION OF DIRECT ENVIRONMENTAL RADIATION DOSE MEASUREMENTS TAKEN NEAR NUCLEAR POWER PLANTS. THE MODELS AND METHODS DEVELOPED SHOULD PROVIDE NRC WITH A BASIS FOR DEVELOPING FURTHER REGULATORY GUIDANCE TO LICENSEES AND APPLICANTS AS WELL AS A METHODOLOGY AGAINST WHICH PROPOSED PROGRAMS COULD BE EVALUATED.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

THE REQUEST FOR RESEARCH CONSTITUTED AN ENDORSEMENT OF A FUNDED PROJECT.

REFERENCE NUMBER: NRR 79-4 FIN # A1010 ASSIGNED TO: RSR CONTRACTOR: SANDIA

RES CONTACT: R. FEIT

USER CONTACT: G. HARRISON

DATE REQUESTED: 01/19/79 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: USER AGREEMENT GN: PROJECT END: FY81

IDENTIFICATION OF REQUEST

FIRE PROTECTION RESEARCH REPLICATION TESTS

BASIS FOR NEED

TO CONFIRM WHETHER FIRE PROTECTION TESTING CONFIGURATIONS ARE VALID FOR
OPERATING PLANT CONFIGURATIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

PERFORM CONFIRMATORY FIRE TESTING OF DETAILED MARKUPS OF SELECTED OPERATING PLANT
CONFIGURATIONS WITH FIRE PROTECTION MEASURES THAT ARE DESIGNED IN ACCORDANCE WITHIN
NRC FIRE PROTECTION GUIDELINES AND FOUND ACCEPTABLE BY NRR STAFF.

REFERENCE NUMBER: NRR 79-5 FIN #

ASSIGNED TO:

CONTRACTOR:

RES CONTACT:

USER CONTACT:

DATE REQUESTED: 02/13/79 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

RATE OF TRANSFORMATION OF SODIUM HYDROXIDE AEROSOLS TO SODIUM CARBONATE
IN THE AIR.

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH:

COMMENTS

NRR NEEDS FOR INVESTIGATION IS NOT URGENT OR OF HIGH PRIORITY, BUT MORE IN
THE NATURE OF A LONGER RANGE AND CONDITIONAL NEED.

REFERENCE NUMBER: NRR 79-6 FIN # ASSIGNED TO: SAFER CONTRACTOR:
RES CONTACT: J. DURST USER CONTACT: V. DE LISO
DATE REQUESTED: 03/21/79 RESPONSE LTR DATE: PROJECT START:
DATE NEEDED: USER AGREEMENT ON: N/A PROJECT END:

IDENTIFICATION OF REQUEST

SURVEY OF PROBLEMS ASSOCIATED WITH SABOTAGE BY EXPLOSIVES OR
 INCENDIARY DEVICES

BASIS FOR NEED

NRR NEEDS INFORMATION WHICH INDICATES THE AMOUNT OF EXPLOSIVES OR
 INCENDIARY CHARGES REQUIRED TO CAUSE DAMAGE TO A NUCLEAR FACILITY
 SEVERE ENOUGH TO EFFECT THE HEALTH AND SAFETY OF THE PUBLIC DUE TO
 SABOTAGE. INFORMATION WOULD THEN BE NEEDED ON THE EXTENT OF ACCEPTABLE
 DAMAGE DUE TO SABOTAGE BY EXPLOSIVES OR INCENDIARY DEVICES SO THAT A
 SATISFACTORY SYSTEM CONCEPT TO PREVENT SABOTAGE TO NUCLEAR FACILITIES
 CAN BE DEVELOPED TO MEET NRC REQUIREMENTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

PROJECT WAS NOT INITIATED. USER REQUEST IS NO LONGER VALID, DUE TO
 TRANSFER OF RESPONSIBILITY FROM NRR TO NMSS.

REFERENCE NUMBER: NRR 79-7 FIN # B7002 ASSIGNED TO: RSR CONTRACTOR: CE/W
B6254 U. FLA.

RES CONTACT: J. HARBOUR USER CONTACT: L. W. HELLER

DATE REQUESTED: 03/23/79 RESPONSE LTR DATE: 09/25/79 PROJECT START:

DATE NEEDED: USER AGREEMENT ON: 09/27/79 PROJECT END:

IDENTIFICATION OF REQUEST

EARTHQUAKE INDUCED FOUNDATION SETTLEMENT

BASIS FOR NEED

TO PROVIDE NRC WITH IMPROVED BASIS FOR APPLYING INTERPRETIVE AND ANALYTICAL METHODS FOR ESTIMATING SOIL BEHAVIOR UNDER EARTHQUAKE LOADING CONDITIONS AND TO CONFIRM ADEQUATE MARGINS OF SAFETY. RESULTS WOULD ALSO ASSIST IN THE DEVELOPMENT OF REGULATORY GUIDES AND STANDARD REVIEW PLANS ADDRESSING THE SEISMIC INDUCED SETTLEMENT AND DIFFERENTIAL SETTLEMENT OF NUCLEAR FACILITIES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 79-8 FIN # ASSIGNED TO: SAFER CONTRACTOR:
RES CONTACT: E. RICHARD USER CONTACT: D. MCKENNA
DATE REQUESTED: 02/28/79 RESPONSE LTR DATE: 05/14/79 PROJECT START:
DATE NEEDED: 08/79 USER AGREEMENT ON: 05/23/79 PROJECT END:

IDENTIFICATION OF REQUEST

IMPLEMENTATION OF SECURITY TRAINING AND QUALIFICATION REQUIREMENTS

BASIS FOR NEED

TO PROVIDE TRAINING AND QUALIFICATION PLAN REVIEW TOOLS AND PROVIDE AN
 ANALYSIS OF THE EFFECTS OF THE TRAINING AND QUALIFICATION PLAN IMPLEMENTATION
 ON: OVERALL SITE SECURITY AND ANY ASSOCIATED PROBLEM AREAS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 79-9 FIN # ASSIGNED TO: RSR CONTRACTOR: RPI
RES CONTACT: N. ZUBER USER CONTACT: T. SPEIS
DATE REQUESTED: 04/11/79 RESPONSE LTR DATE: PROJECT START: 09/05/78
DATE NEEDED: USER AGREEMENT ON: 11/16/79 PROJECT END: 09/30/81

IDENTIFICATION OF REQUEST

AUDIT CAPABILITY IN THE AREA OF THERMAL-HYDRAULIC STABILITY

BASIS FOR NEED

TO PROVIDE NRR WITH A VERIFIED AUDIT CAPABILITY FOR PREDICTING THE ONSET AND RESULTS OF TWO PHASE FLOW INSTABILITIES IN LIGHT WATER REACTORS. THIS PROGRAM IS INTENDED TO BE A MAJOR PART OF NRR'S TASK ACTION PLAN FOR RESOLVING THE GENERIC ISSUE OF THERMAL-HYDRAULIC STABILITY.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

FIRE QUARTERLY AND TWO TOPICAL REPORTS HAVE BEEN ISSUED TO DATE. THE TOPICAL REPORT ENTITLED: 'AN ASSESSMENT OF THE LITERATURE RELATED TO LWR INSTABILITY MODES', NUREG/CR-1414, PRESENTS THE RESULTS OF AN EXTENSIVE LITERATURE SURVEY ON INSTABILITY MODES OF RELEVANCE TO LWR TECHNOLOGY AND SUMMARIZES THE CURRENT UNDERSTANDING OF RELEVANT THERMALHYDRAULIC AND NUCLEAR-COUPLED INSTABILITY MODES.

REFERENCE NUMBER: NRR 79-10 FIN # A1181
A1218
A7083 ASSIGNED TO: RSR CONTRACTOR: SANDIA

RES CONTACT: T.J. WALKER

USER CONTACT: A. MARCHESI

DATE REQUESTED: 04/13/79 RESPONSE LTR DATE: 09/21/79 PROJECT START: SUBJECT TO FY 80 TMI SUPPLEMENT
08/00/80

DATE NEEDED: USER AGREEMENT ON: 09/27/79 PROJECT END: 4 YRS. AFTER START

IDENTIFICATION OF REQUEST

TECHNOLOGY FOR CORE MELT RETENTION - CONCEPT ASSESSMENT.
MATERIALS INTERACTIONS BETWEEN CORE MELT DEBRIS AND VARIOUS REFRACTORY
MATERIALS

BASIS FOR NEED

TO PROVIDE A BASIS IN ASSESSING RISK REDUCTION POTENTIAL AND IMPROVE
REACTOR SAFETY.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

INITIALLY GENERIC RESEARCH INFORMATION ON MGO AND OTHER MATERIALS FROM A1218 AND A1181
WILL BE UTILIZED ON THIS PROJECT. HOWEVER, KEY SPECIFIC ITEMS REQUESTED IN NRR 79-10
CAN BE ADDRESSED WITHOUT FUNDS REQUESTED IN THE TMI FY80 SUPPLEMENT.

REFERENCE NUMBER: NRR 79-11 FIN # A3216 ASSIGNED TO: RSR CONTRACTOR: BNL
RES CONTACT: J. COSTELLO USER CONTACT: P. KUO
DATE REQUESTED: 04/13/79 RESPONSE LTR DATE: N/A PROJECT START: 05/01/79
DATE NEEDED: N/A USER AGREEMENT DN: 04/13/80 PROJECT END: 06/30/80

IDENTIFICATION OF REQUEST

COMPUTER CODES FOR SOIL-STRUCTURE INTERACTION

BASIS FOR NEED

TO PROVIDE LICENSING STAFF A BASIS FOR MAKING INDEPENDENT JUDGMENTS ABOUT THE ADEQUACY OF SOIL-STRUCTURE INTERACTION RESULT PRODUCED BY APPLICATIONS. IN-HOUSE CODES WOULD ENABLE THE STAFF TO PERFORM SENSITIVITY STUDIES ON RESULTS PRESENTED.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

FINAL REPORT IN PREPARATION.

REFERENCE NUMBER: NRR 79-12* FIN # B6268 ASSIGNED TO: SAFER CONTRACTOR: MOUNTAIN WEST RESEARCH, INC.
RES CONTACT: C. PRICHARD USER CONTACT: M. KALTMAN
DATE REQUESTED: 04/26/79 RESPONSE LTR DATE: PROJECT START: 06/01/79
DATA NEEDED: 12/79 USER AGREEMENT ON: PROJECT END: 12/79

IDENTIFICATION OF REQUEST

MODIFICATION OF POST - LICENSING STUDIES OF THE SOCIO ECONOMIC IMPACTS OF NUCLEAR POWER STATION SITING TO INCLUDE EFFECTS OF TMI ACCIDENT.

BASIS FOR NEED

TO PROVIDE INFORMATION ON THE IMMEDIATE AND LONGER TERM SOCIOECONOMIC IMPACTS OF THE ACCIDENT ON THE VICINITY OF THREE MILE ISLAND AND A FACTUAL PERSPECTIVE FOR FUTURE ANALYSIS. THIS WOULD PERMIT THE NRC TO FOCUS ON THE MORE LIKELY OR CONSEQUENTIAL IMPACTS AND MITIGATION PROCEDURES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

PROJECT COMPLETED.

COMMENTS

THIS MODIFIES REQUEST NRR 77-10 TO INCLUDE TMI ACCIDENT IN RESEARCH.

DOCUMENTS ISSUED: NUREG/CR-1093, TMI TELEPHONE SURVEY
NUREG/CR-1215, SOCIAL AND ECONOMIC EFFECTS OF THE
ACCIDENT AT TMI
RIL #82, 02/29/80

REFERENCE NUMBER: NRR 79-13 FIN # A6038 ASSIGNED TO: RSR CONTRACTOR: INEL
RES CONTACT: H. SULLIVAN USER CONTACT: B. W. SHERON
DATE REQUESTED: 05/15/79 RESPONSE LTR DATE: 04/08/80 PROJECT START: 12/01/79
DATE NEEDED: USER AGREEMENT ON: * PROJECT END: 05/01/80

IDENTIFICATION OF REQUEST

SEMISCALE PROGRAM

BASIS FOR NEED

A DATA BASE IS NEEDED TO MORE FULLY UNDERSTAND THE EFFECTS OF PUMP
PERFORMANCE DURING SMALL BREAK LOCA TRANSIENT.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

*SECY 78-622

DOCUMENTS ISSUED:

NUREG/CR-0254, 08/78	NUREG/CR-0356, 12/78
NUREG/CR-0281, 09/78	NUREG/CR-0814, 06/79
NUREG/CR-0289, 07/78	NUREG/CR-0815, 06/79
NUREG/CR-0291, 12/78	NUREG/CR-0871, 07/79
NUREG/CR-0406, 01/79	NUREG/CR-1080, 10/79
NUREG/CR-0467, 01/79	

REFERENCE NUMBER: NRR 77-14 FIN # A4056 ASSIGNED TO: RSR CONTRACTOR: BOSTON COLLEGE

RES CONTACT: R. BRAZEE

USER CONTACT:

DATE REQUESTED: 05/24/79 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

ACQUISITION AND DEPLOYMENT OF A PORTABLE SEISMIC ARRAY IN NEW ENGLAND

BASIS FOR NEED

NEED TO ACQUIRE PORTABLE SEISMIC INSTRUMENTS WHICH COULD BE DEPLOYED QUICKLY
IN AREAS OF EARTHQUAKE OCCURRENCES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 79-15 FIN #

ASSIGNED TO: RSR

CONTRACTOR:

RES CONTACT: D. HOATSON

USER CONTACT:

DATE REQUESTED:

RESPONSE LTR DATE: 04/07/80 PROJECT START: FY 80

DATE NEEDED:

USER AGREEMENT ON: 04/28/80 PROJECT END: FY 83

IDENTIFICATION OF REQUEST

POST LOCA DEGRADATION EFFECTS AND COMBUSTION GAS GENERATION RATES

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 79-16 FIN # B0442 ASSIGNED TO: RSR CONTRACTOR: ORNL
B0191

RES CONTACT: W. FARMER

USER CONTACT: R. SATTERFIELD

DATE REQUESTED: 07/30/79 RESPONSE LTR DATE: 11/09/79 PROJECT START: FY 80

DATE NEEDED: USER AGREEMENT ON: 12/27/79 PROJECT END:

IDENTIFICATION OF REQUEST

CONTINUOUS ON-LINE REACTOR SURVEILLANCE SYSTEM

BASIS FOR NEED

EARLY DETECTION AND DIAGNOSIS OF ANOMALOUS TRENDS FOLLOWED BY CORRECTIVE ACTION BY THE REACTOR OPERATOR WILL ENHANCE REACTOR SAFETY BY REDUCING CHALLENGES TO SAFETY SYSTEMS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

DOCUMENTS ISSUED: QA PLAN (8003280493)

REFERENCE NUMBER: NRR 79-17 FIN # A2017
B5531 ASSIGNED TO: RSR CONTRACTOR: PNL
ANL

RES CONTACT: USER CONTACT: C. MOHR, T. KASSNER

DATE REQUESTED: 08/07/79 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: 09/81 USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

PELLET/CLADDING INTERACTION (PCI) IN REACTOR POWER RAMP DATA

BASIS FOR NEED

DATA IS NEEDED TO DEVELOP IMPROVED FUEL DAMAGE LIMITS FOR LICENSING OF PRESSURIZED AND BOILING WATER REACTORS. USE OF THE DATA WOULD EVENTUALLY LEAD TO DEVELOPMENT OF A PCI FAILURE MODEL FOR USE IN SAFETY ANALYSES RELATED TO REACTOR LICENSING.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 79-18* FIN # A1239 ASSIGNED TO: SAFER CONTRACTOR: SANDIA
RES CONTACT: S. BASSETT USER CONTACT: M. HOWARD
DATE REQUESTED: 08/13/79 RESPONSE LTR DATE: 10/26/79 PROJECT START: 10/30/79
DATE NEEDED: 06/01/80 USER AGREEMENT ON: 10/30/79 PROJECT END: 06/01/80

IDENTIFICATION OF REQUEST

EVALUATE NRC NUCLEAR DATA LINK (NDL) REQUIREMENTS.

BASIS FOR NEED

TO EVALUATE HOW TO ESTABLISH A REAL-TIME CAPABILITY TO RECEIVE AND RECORD
PLANT DATA AT NRC'S HEADQUARTERS OPERATIONS CENTER.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

* ALSO SEE I&E 79-2

REFERENCE NUMBER: NRR 79-19 FIN # ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: F. SWANBERG USER CONTACT:

DATE REQUESTED: RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

DEVELOPMENT OF REAL TIME ATMOSPHERIC DISPERSION MODEL

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NPR 79-20 FIN #
RES. CONTACT: H. SULLIVAN
DATE REQUESTED: 08/17/79 RESPONSE LTR DATE: 12/26/79 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: 01/18/80 PROJECT END:

ASSIGNED TO: RSR CONTRACTOR: * UNSPECIFIED

USER CONTACT: B. SHERON

IDENTIFICATION OF REQUEST

NOM EQUILIBRIUM HEAT TRANSFER MODEL

BASIS FOR NEED

TO PROVIDE AN EXPERIMENTALLY AND PHENOMENOLOGICALLY BASED NONEQUILIBRIUM HEAT TRANSFER MODEL FOR POST - CHF HEAT TRANSFER APPLICABLE TO BOTH HIGH AND LOW FLOW RATES IN ROD BUNDLES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

* RFP IS SCHEDULED TO BE ISSUED 10/15/80.

COMMENTS

REFERENCE NUMBER: NRR 79-21 FIN # N/A ASSIGNED TO: RSR CONTRACTOR:
 RES CONTACT: C. SERPAN USER CONTACT: D. SNAIDER
 DATE REQUESTED: 09/05/79 RESPONSE LTR DATE: 11/27/79 PROJECT START:
 DATE NEEDED: USER AGREEMENT ON: N/A PROJECT END:

IDENTIFICATION OF REQUEST
EFFECTS OF LAMELLAR TEARING

BASIS FOR NEED

TO RESOLVE QUESTIONS REGARDING LAMELLAR TEARING OF MATERIALS UTILIZED IN REACTOR COMPONENT SUPPORTS. THE INFORMATION OBTAINED WOULD BE USED IN ADDITION OR REVISION TO NRR STANDARD REVIEW PLANS AND BRANCH TECHNICAL POSITIONS FOR USE IN NRR'S LICENSING REVIEW.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REQUEST WAS TURNED DOWN BY RES DUE TO LACK OF FUNDING. NRR SUBSEQUENTLY REFERRED REQUEST TO EPRI.

REFERENCE NUMBER: NRR 79-22 FIN # 87078 ASSIGNED TO: SAFER CONTRACTOR: PENN. STATE
 RES CONTACT: C. PRICHARD USER CONTACT: M. KALTMAN
 DATE REQUESTED: 08/30/79 RESPONSE LTR DATE: 11/27/79 PROJECT START: 04/20/80
 DATE NEEDED: 04/30/81 USER AGREEMENT ON: 12/05/79 PROJECT END:

IDENTIFICATION OF REQUEST

LAND VALUE/LAND USE IMPACT STUDIES/EFFECTS OF TMI NPP ACCIDENT ON RES PROPERTY VALUES

BASIS FOR NEED

TO PROVIDE INFORMATION ON SHORT- AND LONG-TERM IMPACT ON PROPERTY VALUES IN THE VICINITY OF THE TMI ACCIDENT SITE.

STATUS OF PROCESSING REQUEST FOR RESEARCH

PROJECT UNDERWAY.

COMMENTS

REFERENCE NUMBER: NRR 79-23 FIN # B0451 ASSIGNED TO: RSR CONTRACTOR: ORNL
 RES CONTACT: W. FARMER USER CONTACT: DANIEL FIENO
 DATE REQUESTED: 09/21/79 RESPONSE LTR DATE: 08-01-80 PROJECT START:
 DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

FEASIBILITY STUDY OF USING A NOISE ANALYSIS METHOD FOR DETERMINING REACTIVITY
 DURING A CORE TRANSIENT OR ACCIDENT

BASIS FOR NEED

TO PROVIDE A BASIS FOR SPECIFYING REQUIREMENTS FOR CORE MONITORING
 DURING ACCIDENTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

NOT FUNDED.

REFERENCE NUMBER: NRR 79-24 FILE # B7027 ASSIGNED TO: RSR CONTRACTOR:
RES CONTACT: SERPAN/VAGINS USER CONTACT: R. GAMBLE
DATE REQUESTED: 10/15/79 RESPONSE LTR DATE: 6/27/80 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: 09/05/80 PROJECT END: 03/31/80
PHASE I

IDENTIFICATION OF REQUEST

CONFIRMATORY RESEARCH TO DETERMINE THE CAPACITY OF DEGRADED PIPING TO
 WITHSTAND ACCIDENT LOADS

BASIS FOR NEED

TO PROVIDE NRR WITH INFORMATION THAT WILL CONFIRM ANALYTICAL TECHNIQUES
 FOR DEVELOPMENT, ASSIST IN THE DEVELOPMENT OF SAFETY CRITERIA FOR LWR
 PIPING, AND PROVIDE CAPABILITY TO ASSESS THE INTEGRITY OF DEGRADED
 PIPING IN OPERATING REACTORS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 79-25 FIN # ASSIGNED TO: RSR CONTRACTOR: NRL
RES CONTACT: R. R. SHERRY USER CONTACT: R. BANGART
DATE REQUESTED: 11/27/79 RESPONSE LTR DATE: 03/12/80 PROJECT START: 07/30/80
DATE NEEDED: USER AGREEMENT ON: 03/21/80 PROJECT END: 09/30/83

IDENTIFICATION OF REQUEST

CONFIRMATORY RESEARCH TO THE PERFORMANCE OF ACTIVATED CHARCOAL IN VENTILATION EXHAUST SYSTEMS AT NUCLEAR POWER PLANTS DURING ACCIDENT CONDITIONS.

BASIS FOR NEED

TO PROVIDE INFORMATION TO DETERMINE THAT CHARCOAL ABSORBERS ARE PERFORMING THEIR INTENDED FUNCTION IN MITIGATING THE CONSEQUENCES OF AN ACCIDENT.

STATUS OF PROCESSING REQUEST FOR RESEARCH

ALL NRC ACTION COMPLETE. AWAITING RECEIPT OF FINAL L89 FROM NRL.

COMMENTS

PROJECT INITIATION AWAITING FUNDING AUTHORIZATION.

REFERENCE NUMBER: HRR 79-26 FIN # B7018 ASSIGNED TO: SAFER CONTRACTOR: RFP
 RES CONTACT: F. SWANBERG USER CONTACT: M. MASNIK
 DATE REQUESTED: 06/28/79 RESPONSE LTR DATE: 11/06/79 PROJECT START:
 DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

EVALUATION OF ECOSYSTEM SIMULATIONS MODELS AS TOOLS FOR ASSESSMENT
 OF POWER PLANT IMPACTS ON FISH POPULATIONS/SIMULATION MODEL - EFFECTS OF NPP
 ON FISH MORTALITY.

BASIS FOR NEED

TO PROVIDE MATHEMATICAL TECHNIQUES FOR CALCULATING IMPACT ASSESSMENTS OF
 NUCLEAR POWER PLANTS ON COMMERCIAL AND RECREATIONAL FISHING SOURCES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

RFP PUBLISHED IN CP .

COMMENTS

REFERENCE NUMBER: NRR 79-27 FIN # B3014 ASSIGNED TO: RSR CONTRACTOR: CL
RES CONTACT: H. SULLIVAN USER CONTACT: D. F. ROSS
DATE REQUESTED: 11/28/79 RESPONSE LTR DATE: 01/30/80 PROJECT START: 12/01/79
DATE NEEDED: USER AGREEMENT ON: * PROJECT END: 03/15/80

IDENTIFICATION OF REQUEST

TWO LOOP TEST APPARATUS (TLTA) SMALL BREAK TESTS

BASIS FOR NEED

TO PROVIDE PRETEST PREDICTIONS WHICH WILL BE USED TO ASSESS THE ANALYSIS
PERFORMED IN SUPPORT OF THE SMALL BREAK EMERGENCY PROCEDURES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

COMPLETE 03/15/80

*SECY 78-622

DOCUMENTS ISSUED: NUREG/CR-1154, 04/79
NUREG/CR-0390, 03/79

REFERENCE NUMBER: NRR 79-29 FIN # B6046 ASSIGNED TO: RSR CONTRACTOR: ERDA, NY
B5615
RES CONTACT: R. BRAZEE USER CONTACT: P. SOBEL
DATE REQUESTED: 12/05/79 RESPONSE LTR DATE: PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

INCREASED SEISMIC MONITORING IN THE REGION AROUND RAMAPO FAULT

BASIS FOR NEED

TO RESOLVE UNCERTAINTIES IN DETERMINING THE EXTENT TO WHICH THE SEISMICITY IN THE HIGHLANDS REGION IS ASSOCIATED WITH THE RAMAPO FAULT OR NEIGHBORING FACTS. RESULTS WOULD ENABLE NRR STAFF TO EVALUATE WHETHER THE RAMAPO OR NEIGHBORING FAULTS ARE LOCALIZING SEISMICITY.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

COMPLETE 03/15/80

REFERENCE NUMBER: NRR 79-30 FIN # A6039 ASSIGNED TO: RSR CONTRACTOR: INEL, MIT

RES CONTACT: H. SULLIVAN

USER CONTACT: B. SHIRON

DATE REQUESTED: 12/27/79 RESPONSE LTR DATE: 02/15/80 PROJECT START: 04/01/80

DATE NEEDED: 09/80 USER AGREEMENT ON: 03/15/80 PROJECT END: 09/30/80

IDENTIFICATION OF REQUEST

TWO PHASE NATURAL CIRCULATION AND PUMP PERFORMANCE

BASIS FOR NEED

TO PROVIDE INFORMATION ON THE BEHAVIOR OF NUCLEAR PLANTS FOLLOWING
POSTULATED SMALL BREAKS IN THE PRIMARY COOLANT SYSTEM.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

DOCUMENTS ISSUED: NUREG-0306, 07/77

REFERENCE NUMBER: NRR 80-1 FIN # A6348 ASSIGNED TO: RSR CONTRACTOR: INEL
RES CONTACT: M. STOLZENBERG USER CONTACT: A. THADANI
DATE REQUESTED: 01/18/80 RESPONSE LTR DATE: 03/27/80 PROJECT START: FY 80
DATE NEEDED: 07/81 USER AGREEMENT ON: 04/28/80 PROJECT END:

IDENTIFICATION OF REQUEST

BEHAVIOR OF SAFETY AND RELIEF VALVES AND ASSOCIATED BLOCK VALVES

BASIS FOR NEED

TO PROVIDE INFORMATION ON VALVE BEHAVIOR UNDER DESIGN BASIS TRANSIENTS AND ACCIDENTS AS WELL AS CALCULATED ANTICIPATED TRANSIENTS WITHOUT SCRAM (ATSW) CONDITIONS. MODELS CONFIRMED BY THE DATA GENERATED BY THE INDUSTRY TESTING PROGRAM ARE NECESSARY TO THE STAFF IN CONFIRMING JUDGMENTS ON THE ADEQUACY AND BEHAVIOR OF PRESSURE RELIEF VALVES AND ASSOCIATED PIPING SYSTEMS ON PWR AND PERHAPS BWR NUCLEAR POWER PLANTS. THIS PROGRAM IS ALSO TO MONITOR THE INDUSTRY TEST PROGRAMS REQUIRED BY TMI-2 LESSONS LEARNED TASK FORCE TO CONFIRM THE ADEQUACY TO THE SAFETY AND RELIEF VALVE AND PIPING UNDER THE ABOVE CONDITIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: NRR 80-2 FIN # ASSIGNED TO: SAFER CONTRACTOR: ORNL
RES CONTACT: C. PRICHARD USER CONTACT: J. ROBERTS
DATE REQUESTED: 01/22/80 RESPONSE LTR DATE: 09/02/80 PROJECT START: 08-15-80
DATE NEEDED: USER AGREEMENT ON: PROJECT END: 09-30-81

IDENTIFICATION OF REQUEST

CONCEPT AND OMCOST CODE DEVELOPMENT

BASIS FOR NEED

THE CONCEPT AND OMCOST COMPUTER CODES NEED ADDITIONAL WORK TO INCLUDE THE EFFECT OF TMI-INDUCED CHANGES IN DESIGN INTO THE CODE FOR EVALUATING ECONOMICS OF NUCLEAR VS. ALTERNATIVE FUELS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

AWAITING FUNDING.

COMMENTS

REFERENCE NUMBER: NRR 80-3 FIN # ASSIGNED TO: RSR CONTRACTOR:
RES CONTACT: J.O. BRIEN (MERB) USER CONTACT: J. KNIGHTON
DATE REQUESTED: 4/15/80 RESPONSE LTR DATE: 6/6/80 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

PHASE II WORK PLAN ON LOAD COMBINATIONS

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

THIS PROJECT WAS ORIGINALLY ONE OF THE TASKS IN THE SEISMIC SAFETY MARGINS RESEARCH PROGRAM USER REQUEST NRR 76-5, 6/16/77. RES EXPANDED THE SCOPE OF THE ORIGINAL PROJECT TO THIS DISTINCT PROJECT BASED ON COMMENTS RECEIVED FROM ACRS IN DECEMBER 1978.

REFERENCE NUMBER: NRR 80-4 FIN # ASSIGNED TO: RSR CONTRACTOR:
RES CONTACT: C. KEI.BER USER CONTACT:
DATE REQUESTED: 7/17/80 RESPONSE LTR DATE: PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

CONTAINMENT SYSTEMS FOR MITIGATION OF DEGRADED
CORE/CORE MELT ACCIDENTS

BASIS FOR NEED

TMI ACTION PLAN ITEM II.B.8
TO DEVELOP INFORMATION WHICH WILL BE USED TO PREPARE GENERAL DESIGN
CRITERIA, REG. GUIDES, TECH. SPECS. AND IN ESTABLISHING ACCEPTANCE
CRITERIA FOR LICENSING DECISIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

RELATED ACTIVITY: TMI ACTION PLAN ITEM II.B.5 (NRR 79-10)

REFERENCE NUMBER: NRR 80-5 FIN #

ASSIGNED TO: RSR

CONTRACTOR:

RES CONTACT:

USER CONTACT:

DATE REQUESTED: 08-14-80 RESPONSE LTR DATE:

PROJECT START: FY81

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END: FY84

IDENTIFICATION OF REQUEST

ASSESSMENT OF ADEQUACY OF EMERGENCY PLANS

BASIS FOR NEED

TO PROVIDE DATA WHICH WILL HELP TO BETTER DETERMINE THE ONSET OF AN EMERGENCY SITUATION, ASSESS THE ONGOING EMERGENCY SITUATION AND AID IN PROJECTING FUTURE ACTIONS TO PROTECT EMERGENCY WORKERS AND THE PUBLIC.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

<u>REFERENCE NUMBER:</u> NRR 80-6	<u>FIN #</u>	<u>ASSIGNED TO:</u>	<u>CONTRACTOR:</u>
<u>RES CONTACT:</u> P. REED		<u>USER CONTACT:</u> W. PASCIAK	
<u>DATE REQUESTED:</u> 08/22/80	<u>RESPONSE LTR DATE:</u>	<u>PROJECT START:</u> FY81	
<u>DATE NEEDED:</u>	<u>USER AGREEMENT ON:</u>	<u>PROJECT END:</u> FY83	

IDENTIFICATION OF REQUEST

P-32 BIOACCUMULATION FACTORS IN FISH

BASIS FOR NEED

TO PROVIDE LICENSING STAFF WITH A BETTER UNDERSTANDING OF
THE IMPORTANCE OF P-32 IN REACTOR EFFLUENT WATER FROM THE
IMPACT STANDPOINT AND ALLOW THE DESIGN OF MONITORING PROGRAMS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: OSP 76-1 FIN # A3056 ASSIGNED TO: SAFER CONTRACTOR: BNL
A6347 INEL
A6287

RES CONTACT: P. REED

USER CONTACT: H. COLLINS, R. DEFAYETTO

DATE REQUESTED: 11/03/76 RESPONSE LTR DATE: 08/30/77 PROJECT START: 01/04/77

DATE NEEDED: FY 82 USER AGREEMENT ON: 09/02/77 PROJECT END: 1982

IDENTIFICATION OF REQUEST

RADIOLOGICAL EMERGENCY INSTRUMENTATION

BASIS FOR NEED

DEVELOP PROTOTYPE RADIOIODINE AIR SAMPLER TO DIFFERENTIATE BETWEEN RADIOIODINE AND NOBLE GAS RADIONUCLIDES, EVALUATE PERFORMANCE UNDER ENVIRONMENTAL CONDITIONS, AND DEVELOP CALIBRATION SOURCE FOR RADIOACTIVE MEASUREMENT COUNTERS USED WITH AIR SAMPLER.

STATUS OF PROCESSING REQUEST FOR RESEARCH

WORK SCOPE BEING DEVELOPED FOR FIN #A6347.

COMMENTS

WORK IS UNDER CONTRACT TO BNL AND WILL FOCUS ON DETECTING RADIONUCLIDES IN THE ENVIRONMENT FROM CONTAMINANT ACCIDENTS WITH ROUTINE MONITORING SYSTEM USING CDV 700 INSTRUMENT. COORDINATED WITH FEMA AND MEMBERS OF FEDERAL INTERAGENCY TASK FORCE ON OFFSITE EMERGENCY INSTRUMENTATION FOR NUCLEAR INCIDENTS.
BNL DEVELOPED AIR SAMPLER.

DOCUMENTS ISSUED: NUREG/CR-0314, 12/78
NUREG/CR-0315, 12/78

REFERENCE NUMBER: OSP 77-1 FIN # B6784 ASSIGNED TO: SAFER CONTRACTOR: NEW ENGLAND REGIONAL COMM.

RES CONTACT: C. PRITCHARD

USER CONTACT: R. JASKE

DATE REQUESTED: 07/22/77 RESPONSE LTR DATE: 06/01/78 PROJECT START: 10/01/79
07/12/79

DATE NEEDED: USER AGREEMENT ON: 07/17/79 PROJECT END: 06/30/81

IDENTIFICATION OF REQUEST

AN INTEGRATED REGIONAL APPROACH TO REGULATORY ENERGY FACILITY SITING

Basis for Need

TO PROVIDE A METHOD WHEREBY THE ENVIRONMENTAL, TECHNICAL, AND ECONOMIC ISSUES AND DATA INVOLVED IN ASSESSING ALTERNATIVES FOR POWER PLANT SITING CAN BE SYSTEMATICALLY REPRESENTED AND ANALYZED ON A REGIONAL AND INTEGRATED BASIS AND TO ACHIEVE IN EACH OF THE PARTICIPATING STATES AN OPERATIONAL CAPABILITY FOR APPLYING THE METHOD.

STATUS OF PROCESSING REQUEST FOR RESEARCH

PROJECT UNDERWAY.

COMMENTS

CONTINUATION OF PRIOR PHASE OF PROJECT.

DOCUMENTS ISSUED: NUREG/CR-0241, 06/78

REFERENCE NUMBER: OSP 78-1 FIN # A6287 ASSIGNED TO: SAFER CONTRACTOR: INEL

RES CONTACT: P. REED

USER CONTACT:

DATE REQUESTED: 04/25/78 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

TRANSPORT OF RADIOACTIVE MATERIALS IN THE ROCKY MOUNTAIN REGION

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: OSP 78-2 FIN # A6286 ASSIGNED TO: SAFER CONTRACTOR: INEL
RES CONTACT: P. REED USER CONTACT: H. COLLINS, R. DEFAYETTE
DATE REQUESTED: 04/25/78 RESPONSE LTR DATE: 11/16/79 PROJECT START: 12/28/79
DATE NEEDED: FY 82 USER AGREEMENT ON: 12/19/79 PROJECT END: 09/82

IDENTIFICATION OF REQUEST

EMERGENCY RADIOLOGICAL INSTRUMENTATION

BASIS FOR NEED

TO PROVIDE INFORMATION WHICH WILL BE USED TO PREPARE COMPREHENSIVE GUIDANCE DOCUMENTS FOR USE BY FEDERAL, STATE, AND LOCAL GOVERNMENTS IN THEIR RADIOLOGICAL EMERGENCY PLANNING AND PREPAREDNESS PROGRAM. TASK I IS A FOLLOW-UP AND EXTENSION OF THE BROOKHAVEN NATIONAL LABORATORY DEVELOPMENT OF A PROTOTYPE RADIOIODINE AIR SAMPLER. TASK II IS AN EVALUATION OF EXISTING CIVIL DEFENSE AND COMMERCIAL TYPES OF RADIOLOGICAL MONITORING INSTRUMENTS AS THEY RELATE TO THEIR POTENTIAL FOR MEASURING RADIOIODINE IN HUMANS, DAIRY CATTLE, MILK, LAND AND WATER.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

COORDINATED WITH FEMA AND MEMBERS OF FEDERAL INTERAGENCY TASK FORCE ON OFFSITE EMERGENCY INSTRUMENTATION FOR NUCLEAR INCIDENTS.

REFERENCE NUMBER: RES 76-1 FIN # B0189 ASSIGNED TO: RSR CONTRACTOR: ORNL

RES CONTACT: R. JOHNSTON

USER CONTACT:

DATE REQUESTED: 10/22/76 RESPONSE LTR DATE: PROJECT START: 10/00/76

DATE NEEDED: USER AGREEMENT CN: PROJECT END: 1982

IDENTIFICATION OF REQUEST

FISSION PRODUCT TRANSPORT TEST FACILITY

BASIS FOR NEED

IMPROVEMENT IN REALISTIC RISK ASSESSMENT CAPABILITY AND POTENTIAL IMPACTS ON SITING POLICY.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REQUESTED BY R. DISALVO/L. S. TONG. FEASIBILITY STUDY NOW IN PROGRESS. A BRIEFING COVERING THIS WORK AND OTHER RELATED WORK WAS CONDUCTED FOR DSE STAFF ON 12/76. FORMAL COORDINATION WILL AWAIT COMPLETION OF THE FEASIBILITY STUDY.

PROJECT HAS BEEN DELAYED FOLLOWING A REVIEW GROUP EVALUATION WHICH INDICATED A NEED FOR:

- A. EARLIER SEPARATE EFFECTS DATA FOR CODE MODEL DEVELOPMENT
- B. VARIABLE SCALING OF COMPONENTS.

CURRENT STATUS:

- A. FUNCTIONAL REQUIREMENTS BEING DEFINED IN MORE DETAIL
- B. PROGRAM ASSUMPTIONS SENT TO TWO POSSIBLE CONTRACTORS FOR COMPETITIVE PROPOSALS.

REFERENCE NUMBER: RES 77-1 FIN # B2268 ASSIGNED TO: SAFER CONTRACTOR: PNL
A1203 LVLCE

RES. CONTACT: S. YANIV

USER CONTACT: R. BERNERO

DATE REQUESTED: 02/10/77 RESPONSE LTR DATE: PROJECT START: 08/01/77
08/01/77

DATE NEEDED: USER AGREEMENT ON: PROJECT END: PHASE I 1980

IDENTIFICATION OF REQUEST

EXPERIMENTAL INVESTIGATION ON THE EFFECTS OF INHALED RADIONUCLIDES IN THE LUNG.

BASIS FOR NEED

TO STRENGTHEN THE HEALTH EFFECTS CALCULATIONS DONE IN SAFETY ANALYSES AND RISK ASSESSMENTS FOR THE PURPOSE OF IMPROVING THE KNOWLEDGE OF DOSE-RESPONSE RELATIONSHIPS FOR EARLY MORTALITY AND MORBIDITY FOLLOWING INHALATION OF RADIONUCLIDES FOUND IN THE NUCLEAR POWER INDUSTRY.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED PHASE I

COMMENTS

REFERENCE NUMBER: RES 77-2* FIN # A1049
B2263 ASSIGNED TO: SAFER CONTRACTOR: SANDIA
HEDL

RES CONTACT: W. LAHS

USER CONTACT:

DATE REQUESTED: 05/19/77 RESPONSE LTR DATE: 05/19/77 PROJECT START: 01/00/76
06/08/77 01/00/77

DATE NEEDED: FY 79 USER AGREEMENT ON: 06/30/77 PROJECT END: 02/00/80
(NMSS)
07/04/77
(SD)

IDENTIFICATION OF REQUEST

DYNAMIC ASSESSMENT OF NORMAL TRANSPORTATION

BASIS FOR NEED

THERE IS A NEED TO DEVELOP A COMPUTATIONAL MODEL AND OBTAIN RESULTS FROM THE MODEL TO DESCRIBE REALISTICALLY THE DYNAMIC STRESS DEVELOPED IN TIE DOWNS (AND CONCURRENTLY IN THE CASK TIE DOWN MEMBER), SO THAT STANDARDS CAN BE FORMULATED FOR TIE DOWNS AND TIE DOWN DEVICES WHICH ARE STRUCTURAL PARTS OF THE PACKAGE.

STATUS FOR PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

* SEE SD 77-14.

DOCUMENTS ISSUED: B2263 - NUREG/CR-0161, 07/78
NUREG/CR-0589, 03/79
SAND-76-0427
SAND-77-1110
SAND-78-0337

REFERENCE NUMBER: RES 78-1 FIN # B2277 ASSIGNED TO: RSR CONTRACTOR: PNL
RES CONTACT: W. JOHNSTON USER CONTACT:
DATE REQUESTED: 02/13/78 RESPONSE LTR DATE: 02/13/78 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: 03/07/78 PROJECT END:

IDENTIFICATION OF REQUEST

LOCA HEATUP EXPERIMENTS IN NRU.

BASIS FOR NEED

TO PROVIDE AN EXPERIMENTAL TEST OF THE BEHAVIOR OF LARGE BUNDLES OF LOW ENRICHED FUELS AT HIGH LINEAR HEAT RATINGS, SINCE THIS CAPABILITY IS NOT AVAILABLE IN PBF.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED. ARRANGEMENTS HAVE BEEN MADE TO CARRY OUT THE TESTS AT CHALK RIVER, CANADA AT THE NRU REACTOR.

COMMENTS

PNL RECEIVED PROGRAM AUTHORIZATION IN MARCH, 1978, AND IS PREPARING PROGRAM PLANS. CONTRACT NEGOTIATIONS ARE UNDERWAY WITH AECL. PLANNING FOR NRU MODIFICATIONS ARE BEING CONDUCTED IN PARALLEL.

REFERENCE NUMBER: RES 79-2 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: F. SWANBERG

USER CONTACT:

DATE REQUESTED:

RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

DATA LINK FOR ENVIRONMENTAL MONITORING.

BASIS FOR NEED

EMI ACTION PLAN

STATUS OF PROCESSING REQUEST FOR RESEARCH

RFP

COMMENTS

REFERENCE NUMBER: RES 79-3 FIN # 5787 ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: C. PRITCHARD

USER CONTACT:

DATE REQUESTED:

RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

EMERGENCY PREPAREDNESS - FEDERAL

BASIS FOR NEED

TMI ACTION PLAN

STATUS OF PROCESSING REQUEST FOR RESEARCH

RFP IN PREPARATION, AWAITING FY 80 SUPPLEMENTAL FUNDS.

COMMENTS

REFERENCE NUMBER: RES 79-4 FIN # B6647 ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: C. PRITCHARD

USER CONTACT:

DATE REQUESTED:

RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

EMERGENCY PREPAREDNESS - STATE AND LOCAL

BASIS FOR NEED

TMI ACTION PLAN

STATUS OF PROCESSING REQUEST FOR RESEARCH

RFP IN PREPARATION, AWAITING FY 20 SUPPLEMENTAL FUNDS.

COMMENTS

REFERENCE NUMBER: RES 79-5 FIN # ASSIGNED TO: RSR CONTRACTOR:
RES CONTACT: J. BURNS (MERB) USER CONTACT:
DATE REQUESTED: 02/02/79 RESPONSE LTR DATE: 07/14/80 PROJECT START:
DATE RECEIVED: USER AGREEMENT ON: 05/22/80 PROJECT END:
(NRR)

IDENTIFICATION OF REQUEST

SEISMIC QUALIFICATION OF NUCLEAR POWER PLANT MECHANICAL AND ELECTRICAL EQUIPMENT

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

RFP NO. NS-RES-80-139 CLOSING DATE FOR RECEIPT OF PROPOSALS 5/29/80

COMMENTS

REFERENCE NUMBER: RES 79-6 FIN #

ASSIGNED TO: RSR

CONTRACTOR:

RES CONTACT:

USER CONTACT:

DATE REQUESTED: 12/18/79 RESPONSE LTR DATE: N/A

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON: 02/22/80
(NRR)

PROJECT END:

IDENTIFICATION OF REQUEST

PLANT DATA PANK

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: RES 80-1 FIN #ASSIGNED TO: RSRCONTRACTOR: MIT
PORTLAND CEMENT
CORNELL U.RES CONTACT:USER CONTACT:DATE REQUESTED: 01/30/80 RESPONSE LTR DATE: PROJECT START:DATE NEEDED: USER AGREEMENT ON: 03/18/80 PROJECT END:
(NRR)IDENTIFICATION OF REQUESTADEQUACY OF CODES, STANDARDS AND SAFETY EVALUATION METHODS FOR REINFORCED
CONCRETE NUCLEAR STRUCTURES.BASIS FOR NEEDTO PROVIDE A COMPREHENSIVE COVERAGE OF ALL ASPECTS OF TECHNICAL INFORMATION
NEEDED FOR LICENSING OF PERTINENT STRUCTURES, PRIMARILY CONTAINMENTS AND CLASS I
SAFETY - RELATED STRUCTURES AND HEAVY FOUNDATIONS FOR THESE STRUCTURES.STATUS OF PROCESSING REQUEST FOR RESEARCHCOMMENTS

REFERENCE NUMBER: RES 80-2 FIN #

ASSIGNED TO:

CONTRACTOR:

LES CONTACT:

USER CONTACT:

DATE REQUESTED: 12/18/79 RESPONSE LTR DATE: N/A

PROJECT START:

DATE NEEDED: USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

LONG-TERM PERFORMANCE OF MATERIALS USED FOR HIGH LEVEL RADIOACTIVE WASTE PACKAGING

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: RES 80-3 FIN # ASSIGNED TO: RSR CONTRACTOR:

RES CONTACT: B. BROWZIN (SEB)

USER CONTACT:

DATE REQUESTED: 06/27/80 RESPONSE LTR DATE: N/A PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

SURGE, WAVE AND METEOROLOGICAL MEASUREMENTS A LONG THE COAST OF FLORIDA

BASIS FOR NEED

TO VALIDATE AND VERIFY MODELS TO PREDICT THE PURGE FROM NRC DESIGN BASIS HURRICANES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: RES 80-4 FIN # B0402 ASSIGNED TO: RSR CONTRACTOR: ORNL

RES CONTACT: H. SCOTT (RSB)

USER CONTACT: W. PAULSON (NRR)

DATE REQUESTED: 07/16/80 RESPONSE LTR DATE: N/A PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

DATA BANK SURVEY (MEASURED INFORMATION REPOSITORY)

BASIS FOR NEED

TO DETERMINE HOW RESEARCH INFORMATION MANAGEMENT MIGHT BE IMPROVED TO BETTER MEET NRC'S OVERALL NEEDS ESPECIALLY IN THE AREA OF MAKING RESEARCH RESULTS MORE READILY AVAILABLE TO THE NRC STAFF.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: RES 80-5 FIN # ASSIGNED TO: RSR CONTRACTOR:

RES CONTACT: D. HOATSON (FB)

USER CONTACT: NRR

DATE REQUESTED: 07/16/80 RESPONSE LTR DATE: N/A PROJECT START: 08/01/80

DATE NEEDED: USER AGREEMENT ON: PROJECT END: 11/31/80

IDENTIFICATION OF REQUEST

HYDROGEN IGNITION IN ICE CONDENSER PLANTS

BASIS FOR NEED

TO ASSESS THE PROPOSED USE OF DISTRIBUTED IGNITION SOURCES AS A MEANS OF CONTROLLING HYDROGEN WHICH MIGHT BE RELEASED INTO ICE CONDENSER CONTAINMENT SYSTEMS IN THE EVENT OF A DEGRADED CARE COOLING ACCIDENT.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: RES 80-6 FIN #

ASSIGNED TO: RSR

CONTRACTOR:

RES CONTACT: Y.Y. HSU (SE)

USER CONTACT: M.W. HODGES (NRR)

DATE REQUESTED: 07/21/80 RESPONSE LTR DATE: N/A

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

BWR THERMAL HYDRAULICS PHENOMENA

BASIS FOR NEED

PROVIDE DATA BASE ON BWR THERMAL HYDRAULICS

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: RES 80-7 FIN #

ASSIGNED TO: RSR

CONTRACTOR:

RES CONTACT: D. HOATSON (FB)

USER CONTACT: NRR

DATE REQUESTED: 07/29/80 RESPONSE LTR DATE: N/A

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

POST ACCIDENT IODINE RESEARCH

BASIS FOR NEED

TO PROVIDE FULL UNDERSTANDING OF THE BEHAVIOR OF IODINE (AND TELLURIUM)
IN PWR AND BWR CONTAINMENT ATMOSPHERE UNDER A RANGE OF HYPOTHETICAL ACCIDENT CONDITIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: RES 80-8 FIN # A6351 ASSIGNED TO: RSR CONTRACTOR: EG & G

RES CONTACT: CURTIS (AARSRB)

USER CONTACT: T. SPEIS (NRR)

DATE REQUESTED: 08/01/80 RESPONSE LTR DATE:

PROJECT START: 07/01/80

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END: 09/30/80

IDENTIFICATION OF REQUEST

CARE MELT MITIGATION SYSTEM

BASIS FOR NEED

TO STUDY DESIGNS OF FUEL MELT MITIGATION SYSTEMS WHICH WILL DEFINE DESIGN SPECIFICATIONS SUITABLE FOR INCORPORATION INTO NRC GENERAL DESIGN CRITERIA.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: RES 80-9 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: KIM

USER CONTACT:

DATE REQUESTED:

RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

DETECTION OF FREE LIQUID IN DRUMS OF SOLIDIFIED NUCLEAR WASTE.

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: RES 80-10 FIN # * ASSIGNED TO: SAFER CONTRACTOR: LBL

RES CONTACT: J. FOULKE

USER CONTACT: SD

DATE REQUESTED: RESPONSE LTR DATE: PROJECT START: FY81

DATE NEEDED: USER AGREEMENT ON: 08/19/80 PROJECT END: FY83

IDENTIFICATION OF REQUEST

ICRP MODELS FOR CALCULATING INTERNAL DOSE

BASIS FOR NEED

TO PROVIDE NRC WITH BETTER INFORMATION FOR CALCULATING
INTERNAL EXPOSURES FROM NUCLIDES OF THE NUCLEAR FUEL CYCLE
AND ITS BYPRODUCTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: RES 80-11 FIN #

ASSIGNED TO: RSR

CONTRACTOR: ANS

RES CONTACT: L. RIB

USER CONTACT: EDO

DATE REQUESTED: 09/04/80 RESPONSE LTR DATE:

PROJECT START: 10/01/80

DATE NEEDED:

USER AGREEMENT ON: 09/09/80 PROJECT END: 09/30/81

IDENTIFICATION OF REQUEST

AMERICAN NUCLEAR SOCIETY (ANS) PUBLICATIONS

BASIS FOR NEED

TO PROVIDE NRC SUPPORT TO ANS PROGRAM TO ACQUIRE,
EDIT AND PREPARE CRITICAL REVIEW ARTICLES FOR
PUBLICATION IN ANS JOURNALS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

ENDORSEMENT RECEIVED FROM EDO 09/09/80.

COMMENTS

FUNDING NOT TO EXCEED \$50,000.

REFERENCE NUMBER: R2S 80-12 FIN #

ASSIGNED TO: RSR

CONTRACTOR:

RES CONTACT: P. WOOD

USER CONTACT: J. MEYER (NRR)

DATE REQUESTED: 09/24/80 RESPONSE LTR DATE: N/A

PROJECT START: FY81

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END: FY83

IDENTIFICATION OF REQUEST

ANALYSIS OF CONTAINMENT SYSTEMS RESPONSE TO SERIOUS ACCIDENTS.

BASIS FOR NEED

IMI-2 ACTION PLAN II.B.8

STATUS OF PROCESSING REQUEST FOR RESEARCH

09/24/80 DRAFT SOW SENT TO NRR FOR ENDORSEMENT

COMMENTS

REFERENCE NUMBER: RES 80-13 FIN #

ASSIGNED TO: RSR

CONTRACTOR:

RES CONTACT: DI SALVO

USER CONTACT:

DATE REQUESTED: 09/23/80 RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED: USER AGREEMENT ON:

PROJECT END: FY83

IDENTIFICATION OF REQUEST

SEVERE ACCIDENT SEQUENCE ANALYSIS.

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: SD 76-1 FIN # ASSIGNED TO: SRR CONTRACTOR: WORK DONE IN HOUSE
RES CONTACT: M. TAYLOR USER CONTACT: V. PANCIERA
DATE REQUESTED: 05/25/76 RESPONSE LTR DATE: PROJECT START: 05/25/76
DATE NEEDED: 06/07/76 USER AGREEMENT ON: PROJECT END: 07/09/76

IDENTIFICATION OF REQUEST

RISK ASSESSMENT OF A BWR MARK I TYPE CONTAINMENT MODEL WITHOUT INERTING.

BASIS FOR NEED

COMMISSION REQUEST.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

RISK PERSPECTIVES OF WASH-1400 WERE USED TO COMPLETE THE REQUESTED WORK WHICH WAS DONE BY PAB STAFF IN HOUSE.
RESULTS WERE REPORTED BY MEMO 07/09/76.

REFERENCE NUMBER: SD 76-2 FIN # A3057 ASSIGNED TO: SRR CONTRACTOR: BNL
RES CONTACT: J. MURPHY USER CONTACT:
DATE REQUESTED: 11/03/76 RESPONSE LTR DATE: 02/11/77 PROJECT START:
DATE NEEDED: 12/00/78 USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

EXTENSION OF WASH-1400 RESULTS TO INVESTIGATE CONSEQUENCE VARIATIONS FOR DESIGN BASIS ACCIDENTS, CLASS 3 THROUGH 8.

BASIS FOR NEED

PART OF THE DEVELOPMENT PLAN FOR NUCLEAR FACILITY SITING AND PRACTICE REVISION.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

MEMO RECEIVED FROM DIRECTOR OF NRR, MARCH 10, 1977, SUPPORTIVE OF FORMULATED RESEARCH PROJECT. A CONTRACT HAS BEEN ISSUED TO BNL WITH SUBCONTRACTS FROM BNL TO SAI AND BCL. PHASE I, A PRE-LIMINARY SCOPING STUDY, IS NEARING COMPLETION. A DETAILED EVALUATION OF THE APPLICABILITY OF EXISTING METHODOLOGY HAS BEEN INITIATED.

REFERENCE NUMBER: SD 77-1* FIN # BC410 ASSIGNED TO: SAFER CONTRACTOR: ORNL
RES CONTACT: J. FOULKE USER CONTACT: A. BRODSKY
DATE REQUESTED: 01/14/77 RESPONSE LTR DATE: 10/31/77 PROJECT START: 01/01/77
DATE NEEDED: 1978, 1979 UP USER AGREEMENT ON: PROJECT END: 09/30/80

IDENTIFICATION OF REQUEST

INTERNAL DOSE CONVERSION FACTORS/METHODS IN DOSIMETRY

BASIS FOR NEED

TO SUPPORT AND IMPROVE NRC STAFF CAPABILITIES IN THE ESTIMATION OF INTERNAL DOSE TO MAN RESULTING FROM INHALATION OR INGESTION OF RADIOACTIVE MATERIALS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETE

COMMENTS

ORNL CONTRACT INITIATED JULY, 1977.

* TRANSFERRED TO NRR 78-5.

REFERENCE NUMBER: SD 77-2 FIN # ASSIGNED TO: RSR CONTRACTOR: SANDIA
RES CONTACT: R. SHERRY USER CONTACT:
DATE REQUESTED: 05/06/77 RESPONSE LTR DATE: PROJECT START:
DATE NEEDED: USER AGREEMENT ON: 06/20/77 PROJECT END:

IDENTIFICATION OF REQUEST

CONSEQUENCES OF A LOSS OF COOLING/SHIELDING WATER IN A LARGE SPENT FUEL STORAGE POOL.
(EXPANSION OF CURRENT CONTRACT AT SANDIA LABORATORIES.)

BASIS FOR NEED

THIS STUDY IS NEEDED TO SUPPORT THE DEVELOPMENT OF A REGULATORY BASIS FOR THE LICENSING
OF THE STORAGE OF SPENT FUEL IN LARGE INDEPENDENT SPENT FUEL STORAGE INSTALLATIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

REFERENCE NUMBER: SD 77-3 FIN # B6016 ASSIGNED TO: SAFER CONTRACTOR: NBS
 RES CONTACT: R. SHEPHARD USER CONTACT: R. JONES
 DATE REQUESTED: 05/06/77 RESPONSE LTR DATE: 05/31/77 PROJECT START: 08/00/77
 DATE NEEDED: 10/00/79 USER AGREEMENT ON: 05/31/77 PROJECT END: 09/31/78

IDENTIFICATION OF REQUEST

DEVELOPMENT PROGRAM IN MEASUREMENTS AND STANDARDS FOR SAFEGUARDING SPECIAL NUCLEAR MATERIAL.

BASIS FOR NEED

NEED TO DEVELOP SPECIALIZED EXPERTISE IN THE AREA OF MEASUREMENT ASSURANCE IN ORDER TO ACHIEVE AN NRC OBJECTIVE TO IMPROVE THE QUALITY OF MEASUREMENT MADE ON SPECIAL NUCLEAR MATERIAL FOR CONTROL AND ACCOUNTING PURPOSES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

06/13/79 - DELETE PER INSTRUCTIONS FROM SD.

DOCUMENTS ISSUED: NUREG/CR-0289

REFERENCE NUMBER: SD 77-4* FIN # A4083 ASSIGNED TO: SAFER CONTRACTOR: ROCHMED (U. OF ROCH.)
RES CONTACT: J. FOULKE USER CONTAC: R. ALEXANDER
DATE REQUESTED: 06/27/77 RESPONSE LTR DATE: 10/25/77 PROJECT START: 08/00/77
DATE NEEDED: 1978 USER AGREEMENT ON: 10/20/77 PROJECT END: 06/00/78

IDENTIFICATION OF REQUEST

BIOLOGICAL EFFECTS OF UF6/UO2F2 IN EXPERIMENTAL ANIMALS

BASIS FOR NEED

TO PROVIDE GUIDANCE ON THE BEHAVIOR OF UO2F2 AND UF6 (WHICH IS CONVERTED TO UO2F2 IMMEDIATELY UPON CONTACT WITH AIR) IN THE BODY FOLLOWING INHALATION--FOR USE IN REGULATORY GUIDE 8.11 "APPLICATIONS OF BIOASSAY FOR URANIUM."

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

REQUEST FOR EXPANSION OF SCOPE 01/16/80.

* SEE SD 77-24.

REFERENCE NUMBER: SD 77-5 FIN # ASSIGNED TO: SAFER CONTRACTOR:
 RES CONTACT: J. FOULKE USER CONTACT: M. PARSONT
 DATE REQUESTED: 07/19/77 RESPONSE LTR DATE: PROJECT START:
 DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

ANALYSIS OF DATA ON HEALTH EFFECTS OF OCCUPATIONAL EXPOSURE TO LOW LEVELS OF IONIZING RADIATION.

BASIS FOR NEED

THE ANALYSIS OF THE MOST COMPLETE DATA ON LOW LEVEL RADIATION EXPOSURE INCLUDING THE DATA USED BY MANCUSO ET AL., WHICH ARE AVAILABLE AT ORNL, WILL PROVIDE MOST EXTENSIVE AND UNIQUE EVALUATION OF LOW LEVEL OCCUPATIONAL EXPOSURE. THIS IS IMPORTANT TO OSD AS BASES FOR ITS REGULATORY STANDARDS DEVELOPMENT RESPONSIBILITIES, AND ALSO IN PROVIDING NRR AND NMSS WITH VALUABLE INFORMATION ON DOSE-EFFECT ASSESSMENT.

STATUS OF PROCESSING REQUEST FOR RESEARCH

MEETING WAS HELD AT ORNL TO DISCUSS THE WORK SCOPE. FORM 189 IS BEING DEVELOPED.

COMMENTS

REQUEST WITHDRAWN.

REFERENCE NUMBER: SD 77-6 FIN # A7039 ASSIGNED TO: SAFER CONTRACTOR: LASL

RES CONTACT: J. FOULKE USER CONTACT: J. CAPLIN

DATE REQUESTED: 08/01/77 RESPONSE LTR DATE: PROJECT START: 10/01/77

DATE NEEDED: CONT. USER AGREEMENT ON: 08/01/77 PROJECT END: CONT.

IDENTIFICATION OF REQUEST

ASSESSMENT OF RESPIRATORY PROTECTION SYSTEMS

BASIS FOR NEED

THE VALUE OF RESPIRATORY PROTECTION DEVICES IN ATMOSPHERES CONTAINING RADIONUCLIDES IS TO BE DETERMINED BY TESTING IN CONTROLLED EXPERIMENTS TO DEVELOP A BASES FOR OCCUPATIONAL STANDARDS GOVERNING THE USE OF SUCH EQUIPMENT IN LICENSED FACILITIES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

ONGOING PROJECT

COMMENTS

THE REQUEST FOR RESEARCH CONSTITUTED AN ENDORSEMENT OF TWO ON-GOING PROJECTS AT LASL (A7039 AND A7041).

*SEE SD 78-5.

REFERENCE NUMBER: SD 77-7 FIN # A1051 ASSIGNED TO: RSR CONTRACTOR: SANDIA
RES CONTACT: R. FEIT USER CONTACT: D. SULLIVAN
DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: 06/27/78 PROJECT START: FY 76
DATE NEEDED: FY79 USER AGREEMENT ON: PROJECT END: FY 84

IDENTIFICATION OF REQUEST

QUALIFICATION TESTING EVALUATION

BASIS FOR NEED

- A) DEVELOPMENT OF RECOMMENDATIONS FOR INCLUDING REQUIREMENTS PERTAINING TO SYNERGISTIC EFFECTS (IF ANY) IN ELECTRIC EQUIPMENT AND PROTECTIVE COATING QUALIFICATION STANDARDS AND GUIDES IS NECESSARY TO DETERMINE IF SIMULATED RADIATION DOSES IMPOSED DURING QUALIFICATION TESTING CAN BE APPLIED IN SEQUENCE WITH THE REMAINDER OF THE HYPOTHETICAL ACCIDENT TEST ENVIRONMENT, OR MUST BE APPLIED CONCURRENTLY IN ORDER TO SIMULATE THE HYPOTHETICAL ACCIDENT ENVIRONMENT ADEQUATELY.
- B) A CONTINUATION OF AN EVALUATION OF ACCELERATED AGING MODEL IS NECESSARY TO DEVELOP TECHNIQUES FOR PERFORMING ACCELERATED AGING UNDER SIMULTANEOUS ENVIRONMENTS OF TEMPERATURE AND RADIATION.
- C) A CONTINUED EVALUATION OF PREVIOUSLY DEVELOPED RECOMMENDATIONS FOR RADIATION SIMULATORS FOR EQUIPMENT QUALIFICATION IS NECESSARY TO DETERMINE ACCEPTABLE TEST RADIATION SOURCES.

THE INFORMATION IDENTIFIED ABOVE IS NEEDED FOR INCLUSION IN REGULATORY GUIDE 1.89, "QUALIFICATION OF ELECTRIC EQUIPMENT FOR LIGHT-WATER-COOLED NUCLEAR POWER PLANTS". ALSO, ISSUANCE OF A REGULATORY GUIDE ENDORSING ANSI N101.2, "PROTECTIVE COATINGS FOR NUCLEAR REACTOR CONTAINMENT FACILITIES" IS HELD UP PENDING RESULTS OF THE RESEARCH ON SYNERGISTIC EFFECTS, AND ACCELERATED AGING, OF PROTECTIVE COATINGS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

<u>DOCUMENTS ISSUED:</u>	NUREG/CR-0183	RIL #96	8/5/80
	NUREG/CR-0275		
	NUREG/CR-0613, 06/79		
	NUREG/CR-0970		
	NUREG/CR-0401, 11/78		
	NUREG/CR-0276, 08/78		
	NUREG/CR-1129, 03/80		

REFERENCE NUMBER: SD 77-8 FIN # ASSIGNED TO: SRR CONTRACTOR:
RES CONTACT: W. VESELY USER CONTACT:
DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: 04/24/78 PROJECT START:
DATE NEEDED: FY79 USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

METHODS TO EVALUATE THE CONTRIBUTION TO SAFETY OF INSERVICE INSPECTION PROGRAMS

BASIS FOR NEED

SCSB-NRC HAS ENDORSED THE ASME CODE, SECTION XI, INSERVICE INSPECTION RULES, BY REFERENCE IN 10 CFR 50, THROUGH THE SUMMER 1975 ADDENDA. FOR THE RULES, SUBSEQUENT TO THE SUMMER 1975 ADDENDA, THE NRC STAFF DOES NOT AGREE WITH THE SECTION XI RULES AND HAS PROPOSED THAT 10 CFR 50 TAKE EXCEPTIONS TO THE SUBSEQUENT ADDENDA. STAFF PARTICIPATION AT RECENT CODE MEETINGS HAS RESULTED IN SIMILAR CONCERNS ABOUT PROPOSED NEW RULES NOW BEING WRITTEN BY THE CODE COMMITTEES. THE PRIMARY DEFICIENCY IS A LACK OF BASES FOR BOTH RELATING AND EVALUATING THE CONTRIBUTION TO SAFETY OF AN INSERVICE INSPECTION PROGRAM.

STATUS OF PROCESSING REQUEST FOR RESEARCH

UNDER ACTIVE CONSIDERATION AND EVALUATION.

COMMENTS

REFERENCE NUMBER: SD 77-9* FIN # ASSIGNED TO: RSR CONTRACTOR:
RES CONTACT: D. REIFF USER CONTACT:
DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: 06/15/78 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

ADDITIONAL REQUIREMENTS FOR DESIGN AND FABRICATION OF NUCLEAR COMPONENTS

BASIS FOR NEED

THE ATTENUATION OF DYNAMIC LOADINGS IN PIPING SYSTEMS IS GENERALLY ACCOMPLISHED BY THE USE OF SNUBBERS. IN SYSTEM ANALYSES, SNUBBERS ARE MODELED IN VARIOUS WAYS WHICH HAVE NOT BEEN SUBSTANTIATED BY SYSTEM DYNAMIC TESTS. DESIGNERS TEND TO AVOID THE DIFFICULTY BY APPLYING SNUBBERS GENEROUSLY IN THEIR PLANTS. THIS OVER-APPLICATION OF SNUBBERS MAY INDUCE PROBLEMS ASSOCIATED WITH EXCESSIVE RESTRAINT OF SYSTEMS.

A COMBINED EXPERIMENTAL AND ANALYTICAL EFFORT IS REQUIRED TO DETERMINE A GENERALLY ACCEPTABLE METHOD FOR MODELING SNUBBERS. THE STUDY MAY CONFIRM A PRESENT PRACTICE OR ESTABLISH NEW REQUIREMENTS FOR SNUBBER MODELING. THE RESULTS SHOULD PROVIDE TO THE PRACTICE OF APPLYING SNUBBERS A SUBSTANTIATED BASIS WHICH CAN JUSTIFY LIMITS ON THE NUMBER OF SNUBBERS NEEDED IN A SYSTEM.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

06/13/79 - DELETE PER INSTRUCTIONS FROM SD.

* SEE SD 79-2.

REFERENCE NUMBER: SD 77-10 FIN # A1010 ASSIGNED TO: RSR CONTRACTOR: SANDIA
B6207 APL

RES CONTACT: R. FEIT USER CONTACT: E. WENZINGER

DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: 04/28/78 PROJECT START:

DATE NEEDED: FY79-81 USER AGREEMENT ON: PROJECT END: FY 86

IDENTIFICATION OF REQUEST

FIRE PROTECTION PROGRAMS

BASIS FOR NEED

RESULTS WILL BE USED IN THE PERIOD FY 1979-81 TO REVISE REG. GUIDE 1.120 AND TO DEVELOP ADDITIONAL
FIRE PROTECTION REG. GUIDES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

DOCUMENTS ISSUED: RIL #14, 11/09/77
RIL #46, 02/12/79

REFERENCE NUMBER: SD 77-11 FIN # B5976 ASSIGNED TO: RSR CONTRACTOR: USC
RES CONTACT: D. REIFF USER CONTACT: W. ANDERSON
DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: 06/01/78 PROJECT START:
DATE NEEDED: FY80 USER AGREEMENT ON: PROJECT END: 06/30/81

IDENTIFICATION OF REQUEST

ANALYTICAL AND EXPERIMENTAL STUDIES OF NONLINEAR SYSTEM MODELING AND SCALING

BASIS FOR NEED

THERE IS A NEED TO DERIVE THE FULL SCALE DYNAMIC RESPONSE OF PUMPS, VALVES AND OTHER ACTIVE COMPONENTS BASED ON RESULTS OF OPERABILITY TESTS OR ANALYSES OF SMALLER SIZED COMPONENTS. NO FACILITIES PRESENTLY EXIST IN THIS COUNTRY WHICH CAN CONDUCT AN OPERABILITY TEST OF LARGE COMPONENTS (E.G., RCS PUMPS, (MSIV'S). PUMP AND VALVE MALFUNCTIONS ARE FREQUENT OCCURRENCES IN OPERATING PLANTS. THE ANSI N278 STANDARDS AND N551 STANDARDS FOR OPERABILITY OF VALVES AND PUMPS, RESPECTIVELY, ARE CURRENTLY UNDER DEVELOPMENT. HOWEVER, THESE STANDARDS PROPOSE SCALING PROCEDURES BASED ON GEOMETRIC SIMILITUDE. THESE PROCEDURES LACK THE FIRM TECHNICAL BASES WHICH THE RESULTS OF THIS RESEARCH WILL PROVIDE.

THERE IS CONCERN ABOUT THE EXTENT TO WHICH ANY SCALING OF VALVES AND PUMPS BASED ON GEOMETRIC SIMILITUDE IS JUSTIFIED IN THAT SUCH FEATURES AS MECHANICAL CLEARANCES RESULT IN NON-LINEAR RESPONSE TO DYNAMIC LOADINGS.

THIS PURPOSE OF THE PROGRAM IS TO ATTEMPT TO DEFINE THE EXTENT TO WHICH SCALING CAN BE APPLIED IN THE QUALIFICATION OF MECHANICAL COMPONENTS, SUCH AS PUMPS AND VALVES, FOR OPERABILITY ESPECIALLY UNDER DYNAMIC LOADING CONDITIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

DOCUMENTS ISSUED: NUREG/CR-0361, 09/78
NUREG/CR-0362, 09/78
NUREG/CR-0949, 09/79
NUREG/CR-1317, 02/80
NUREG/CR-1068, 12/79
NUREG/CR-1067, 11/79
NUREG/CR-0361, 09/78
NUREG/CR-0362, 09/78
NUREG-0192-1, 02/77

REFERENCE NUMBER: SD 77-12 FIN # ASSIGNED TO: SAFER CONTRACTOR:
RES CONTACT: C. BARTLETT USER CONTACT: W. BARKER/SINGER
DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

PRODUCT SAFETY TESTING PROGRAM

BASIS FOR NEED

DECONTAMINATION FACTORS FOR SCRAP METAL IN ENRICHMENT PLANTS NEED TO BE DETERMINED BY QUANTITATIVE ANALYSES AND USED TO BACK UP ASSUMPTIONS USED BY A TECHNICAL ASSISTANCE CONTRACTOR IN EVALUATING ENVIRONMENTAL ASSUMPTIONS USED BY A TECHNICAL ASSISTANCE CONTRACTOR IN EVALUATING ENVIRONMENTAL IMPACTS AND USED BY TPSB IN EXEMPTING SMELTED METAL ALLOYS FROM LICENSING REQUIREMENTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: SD 77-13* FIN # B2093 ASSIGNED TO: SAFER CONTRACTOR: PNL
BCL

RES CONTACT: W. LAHS

USER CONTACT: W. LAKE, D. HOPKINS

DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: 11/08/77 PROJECT START: 06/76

DATE NEEDED: FY79 USER AGREEMENT CN: 12/01/77 PROJECT END: 06/80

IDENTIFICATION OF REQUEST

PLUTONIUM OXIDE LEAK RATES FROM SHIPPING CONTAINERS

BASIS FOR NEED

THE NEED TO EVALUATE POSSIBLE LEAKAGE OF RADIOACTIVE MATERIAL FROM CONTAINERS DURING SHIPMENT REQUIRES A METHOD OF TESTING AND MEASURING LEAKAGE AND OF CORRELATING TEST RESULTS WITH ACTUAL SHIPMENT CONDITIONS. MANY OF THE RADIOACTIVE SHIPMENTS ARE IN THE FORM OF A POWDER OR SLURRY WHICH ARE NOT SUSCEPTIBLE TO MEASUREMENT AT THE VERY LOW LEAK RATES INVOLVED. ALTHOUGH DIRECTED PRINCIPALLY TO THE LEAKAGE OF GASES OR LIQUIDS, ANSI N14.5 STATES THAT LEAKAGE OF PARTICULATES (SLURRIES OR POWDERS) CAN BE CONSERVATIVELY ASSESSED BY ASSUMING THESE MATERIALS BEHAVE AS WATER. THE USE OF WATER AS A SURROGATE TEST MATERIAL IS NO. PRACTICAL FOR THESE LOW LEAK RATES AND THE USE OF GASES WITHOUT FURTHER DEVELOPMENT OF CORRELATION METHODS RESULTS IN GROSS OVERESTIMATION OF LEAK RATES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETE

COMMENTS

RES INITIATED REQUEST/RESPONSE LETTER WITH ASSISTANCE FROM NMSS.

* SEE NMSS 77-15.

DOCUMENTS ISSUED: NUREG/CR-1099
NUREG/CR-0958

REFERENCE NUMBER: SD 77-14* FIN # A1049 ASSIGNED TO: SAFER CONTRACTOR: SANDIA
 RES CONTACT: W. LAHS USER CONTACT:
 DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: 05/19/77 PROJECT START: 01/76
 DATE NEEDED: FY79 USER AGREEMENT ON: 06/30/77 PROJECT END: 02/80
 07/16/77

IDENTIFICATION OF REQUEST

DYNAMIC ANALYSIS OF SHIPPING CASK DURING NORMAL TRANSPORTATION.

BASIS FOR NEED

THERE IS A NEED TO DEVELOP A COMPUTATIONAL MODEL AND OBTAIN RESULTS FROM THE MODEL TO DESCRIBE REALISTICALLY THE DYNAMIC STRESS DEVELOPED IN TIE DOWNS (AND CONCURRENTLY IN THE CASK TIE DOWN MEMBER)*, SO THAT STANDARDS CAN BE FORMULATED FOR TIE DOWNS AND TIE DOWN DEVICES WHICH ARE STRUCTURAL PARTS OF THE PACKAGE.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETE

COMMENTS

* SEE RES 77-2

DOCUMENTS ISSUED:

SAND 77-1110
 SAND 78-0337
 SAND 76-0427

REFERENCE NUMBER: SD 77-15* FIN # 45790 ASSIGNED TO: SAFER CONTRACTOR: SAI

RES CONTACT: USER CONTACT: N. EISENBERG, D. HOPKINS

DATE REQUESTED: 04/08/76 RESPONSE LTR DATE: 06/07/77 PROJECT START: 08/14/78

04/18/76
05/10/76
04/15/77

DATE NEEDED: USER AGREEMENT ON: 06/22/77 PROJECT END: 08/13/79

08/12/78

IDENTIFICATION OF REQUEST

SCOPING STUDY SPENT FUEL TRANSPORT ACCIDENTS

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

* SEE SD 77-27

DOCUMENT ISSUED:

REFERENCE NUMBER: SD 77-16 FIN # ASSIGNED TO: RSR CONTRACTOR:
RES CONTACT: J. HARBOUR USER CONTACT:
DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: 04/30/78 PROJECT START:
DATE NEEDED: NOW -- 82 USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

REGIONAL SEISMIC AND GEOLOGIC STUDIES

BASIS FOR NEED

CONTROVERSY ARISES IN INDIVIDUAL CASE LICENSING REVIEWS BECAUSE OF THE LIMITED KNOWLEDGE OF THE CAUSE OF EARTHQUAKES IN THE EASTERN U.S. THERE IS A NEED TO BETTER DEFINE SEISMOLOGIC AND GEOLOGIC CONDITIONS IN THE EASTERN U.S., TO REDUCE CONTROVERSY, TO STANDARDIZE THE REVIEW AND SPEED UP THE LICENSING REVIEW PROCESS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

THIS REQUEST IS UNDER REVIEW. CLARIFICATION IS NEEDED FROM THE OFFICE OF STANDARDS DEVELOPMENT.

COMMENTS

REFERENCE NUMBER: SD 77-17 FIN # ASSIGNED TO: SRR/RSR CONTRACTOR:
 RES. CONTACT: I. WALL USER CONTACT: J. HARBOUR
 DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: 04/30/78 PROJECT START:
 DATE NEEDED: FY 78-80 USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

RESEARCH IN THE AREA OF EARTHQUAKE RISK

BASIS FOR NEED

THERE IS A NEED TO ESTABLISH A BROAD PROGRAM TO EVALUATE THE USEFULNESS OF PROBABILISTIC PROCEDURES AS INPUT INTO THE ASSESSMENT OF EARTHQUAKE RISKS AND SEISMIC DESIGN. THIS IS PART OF THE SSSB/SD M30 PROGRAM TO CONTINUOUSLY REVIEW AND TO DEVELOP IMPROVED REGULATORY GUIDANCE IN THE GEOLOGIC AND SEISMOLOGIC AREA OF NUCLEAR POWER PLANT SITING.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

THIS REQUEST IS UNDER REVIEW; CLARIFICATION IS NEEDED FROM THE OFFICE OF STANDARDS DEVELOPMENT.

IN ADDITION TO THE ABOVE PROGRAM, THERE HAS BEEN AN ONGOING PROGRAM AT MIT SINCE 1975 UNDER THE DIRECTION OF PROFESSOR ALAN CORNELL. THIS WORK IS BEING SUPPORTED IN COOPERATION WITH THE NATIONAL SCIENCE FOUNDATION. N.S.F. IS FUNDING THE DEVELOPMENT OF NEW MODELS FOR PROBABILISTIC RISK ASSESSMENT WHICH WILL INCORPORATE UNCERTAINTIES IN THE SEISMIC INPUT AND STRUCTURAL RESPONSE IN ORDER TO DERIVE AN UNCERTAINTY STATEMENT ON THE OVERALL SEISMIC RISK. NRC IS FUNDING THE APPLICATION OF THE PROGRAM TO NUCLEAR REACTORS.

06/14/79 - COMBINED W. 4 SD 77-29 PER SD.

REFERENCE NUMBER: SD 77-18 FIN # B5959 ASSIGNED TO: SAFER CONTRACTOR: U. MD.

RES CONTACT: C. BARTLETT

USER CONTACT:

DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: 11/22/77 PROJECT START: 10/31/77
03/25/78

DATE NEEDED: USER AGREEMENT ON: PROJECT END: 08/31/79

IDENTIFICATION OF REQUEST

ENVIRONMENTAL IMPACT OF BY-PRODUCT MANUFACTURERS AND MEDICAL USES OF BY-PRODUCT MATERIALS/
INSTITUTIONAL RADWASTE CHARACTER/PROPERTY OF RADWASTE

BASIS FOR NEED

TO PROVIDE A TECHNICAL BASIS FOR EVALUATING REGULATORY PRACTICES RELATED TO PRODUCTION AND USE
OF BY-PRODUCT MATERIALS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

MORE SPECIFIC DETAILS ON THIS SUGGESTED PROJECT ARE CONTAINED IN MEMO FROM MINOGUE TO KOULS DATED
04/02/76, SUBJECT: RECOMMENDED RESEARCH STUDIES ON RELEASES TO THE ENVIRONMENT OF BY-PRODUCT
MATERIALS ASSOCIATED WITH NUCLEAR MEDICINE

DOCUMENTS ISSUED: B5959 - NUREG/CR-1137
A3027 - NUREG/CR-0057
NUREG/CR-0911

ALSO SEE NMSS 76-16 (A3027)

REFERENCE NUMBER: SD 77-19 FIN # ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT:

USER CONTACT:

DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: CONTINUING USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

ASSESSMENT OF ENVIRONMENTAL TECHNICAL SPECIFICATIONS (NON-RADIOLOGICAL)

BASIS FOR NEED

NON-RADIOLOGICAL ENVIRONMENTAL MONITORING REQUIREMENTS HAVE BEEN CRITICIZED AS EXCESSIVE OR INADEQUATE BY THE INDUSTRY, INTERVENORS, AND STAFFS OF NATIONAL LABORATORIES. EXISTING REQUIREMENTS SHOULD BE ANALYZED IN THE CONTEXT OF THEIR REGULATORY BASIS. CRITERIA SHOULD BE DEVELOPED FOR ENVIRONMENTAL TECHNICAL SPECIFICATION MONITORING REQUIREMENTS.

THE RESULTS OF THE PROJECT WILL BE USED TO MODIFY REG. GUIDE 4.8 AS APPROPRIATE (MBO-A.4.G(1)F).

STATUS OF PROCESSING REQUEST FOR RESEARCH

PENDING AVAILABLE FUNDS.

COMMENTS

REFERENCE NUMBER: SD 77-20 FIN # B0158 ASSIGNED TO: SAFER CONTRACTOR: ORNL
RES CONTACT: J. FOULKE USER CONTACT: E. CONTI
DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: PROJECT START: 04/01/78
DATE NEEDED: FY79 USER AGREEMENT ON: PROJECT END: 09/30/83

IDENTIFICATION OF REQUEST

DEVELOPMENT AND CONFIRMATION OF BIOTRANSPORT AND DOSIMETRY MODELS TO IMPLEMENT 10 CFR 50, APPENDIX I.

BASIS FOR NEED

THERE IS A NEED TO APPLY ADVANCED INTERNAL AND EXTERNAL DOSIMETRIC MODELS TO NUCLIDES AND POPULATION GROUPS OF SPECIAL INTEREST TO NRC FOR THE PURPOSE OF REVISING REG. GUIDE 1.109 AS APPROPRIATE (MBO-A.1.J(2)A). REG. GUIDE 1.109 CONTAINS DOSE MODELS TO BE USED TO DETERMINE COMPLIANCE WITH APPENDIX I OF 10 CFR PART 50.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: SD 77-21* FIN # B0410 ASSIGNED TO: SAFER CONTRACTOR: ORNL
RES CONTACT: J. FOULKE USER CONTACT:
DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: PROJECT START:
DATE NEEDED: 1980-1982 USER AGREEMENT ON: PROJECT END: 09/30/83

IDENTIFICATION OF REQUEST

DEVELOPMENT OF INTERNAL DOSE DATA AND ASSESSMENT SYSTEM AT ORNL

BASIS FOR NEED

THE REQUIREMENT FOR THIS WORK TIES IN WITH BOTH THE NEED OF ASSESSING ENVIRONMENTAL AND PUBLIC EXPOSURES AS WELL AS THE NEED TO ASSESS OCCUPATIONAL EXPOSURES TO NRC EMPLOYEES FROM BOTH REAL AND POSTULATED INCIDENTS. THERE WILL BE A CONTINUING REQUIREMENT ONCE THE SYSTEM IS DEVELOPED, FOR UPDATING OF THE DATA FILE AS CERTAIN ADDITIONAL BIOLOGICAL AND ECOLOGICAL DATA BECOME AVAILABLE.

THIS WORK IS RELATED TO THE DEVELOPMENT OF AN NRC-RESPONSIVE COMPUTER SYSTEM AT ORNL FOR CALCULATING ACCURATE DOSE CONVERSION FACTORS AND INTERNAL DOSE ESTIMATES FOR ALL NUCLIDES OF INTEREST TO NRC, AND FOR VARIOUS POPULATION CHARACTERISTICS, WAS DESCRIBED IN A PREVIOUS MEMO FROM R. B. MINOGUE TO S. LEVINE OF JANUARY 14, 1977.

STATUS OF PROCESSING REQUEST FOR RESEARCH

ONGOING PROJECT.

COMMENTS

* SEE NRR 78-5.

REFERENCE NUMBER: 50 77-22 FIN # ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: J. FOULKE USER CONTACT:

DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: FY80-82 USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

DEVELOPMENT OF PERFORMANCE CRITERIA FOR QUALITY CONTROL OF RADIOANALYTICAL LABORATORIES

BASIS FOR NEED

THE NEED HAS EXISTED FOR MANY YEARS TO DEVELOP AND IMPLEMENT CRITERIA FOR TESTING THE PERFORMANCE OF LABORATORIES PROVIDING RADIOANALYTICAL ANALYSES FOR USE IN INTERNAL DOSE AS WELL AS ENVIRONMENTAL ASSESSMENTS. PREVIOUS AEC, ERDA, AND NRC EFFORTS IN THIS AREA ARE LIMITED AND REQUIRE A COMPREHENSIVE CONFIRMATORY RESEARCH PROGRAM TO IDENTIFY ACCEPTABLE METHODS OF RADIOANALYTICAL ANALYSIS FOR NUCLIDES OF NRC INTEREST IN THE VARIOUS BIOLOGICAL AND ENVIRONMENTAL MEDIA INVOLVED. VARIOUS PILOT TESTS PREVIOUSLY CARRIED OUT HAVE SHOWN THAT IMPORTANT OCCUPATIONAL EXPOSURES TO RADIONUCLIDES HAVE SOMETIMES BEEN MISSED OR INADEQUATELY EVALUATED AS A RESULT OF ERRORS IN LABORATORY PROCEDURES. ACTION SHOULD BE TAKEN IN THIS AREA OF DOSIMETRY FOR INTERNAL PERSONNEL DOSE EQUIVALENT TO PARALLEL ACTION IN PROGRESS TO AMEND 10 CFR PART 20 REGARDING PERFORMANCE TESTING OF PERSONNEL DOSIMETRY FOR EXTERNAL RADIATION DOSE. HOWEVER, ESSENTIAL INFORMATION MUST BE DEVELOPED PREPARATORY TO ESTABLISHING ACCEPTABLE PERFORMANCE, TEST, AND QUALITY CONTROL CRITERIA.

STATUS OF PROCESSING REQUEST FOR RESEARCH

DEVELOPMENT PENDING AVAILABILITY OF FUNDS.

COMMENTS

REFERENCE NUMBER: SD 77-23 FIN # ASSIGNED TO: SAFER CONTRACTOR:
RES CONTACT: J. FOULKE USER CONTACT:
DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: PROJECT START:
DATE NEEDED: FY80 USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

METABOLIC DATA FOR INTERVAL DOSIMETRY OF HEAVY ELEMENT BURDENS WITH AND WITHOUT DTPA THERAPY

BASIS FOR NEED

THERE IS A NEED TO CARRY OUT COMPARATIVE ANIMAL EXPERIMENTS TO OBTAIN PRACTICAL MODELS OF HEAVY ELEMENT METABOLISM NEEDED FOR DEVELOPING BIOASSAY PROGRAM GUIDANCE FOR NRC MATERIALS AND FACILITIES LICENSEES WHOSE EMPLOYEES ARE EXPOSED TO THE MORE RADIOTOXIC HEAVY ELEMENTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

DEVELOPMENT PENDING AVAILABILITY OF FUNDS.

COMMENTS

REFERENCE NUMBER: SD 77-24* FIN # A4083 ASSIGNED TO: SAFER CONTRACTOR: U. OF ROCH.

RES CONTACT: J. FOULKE

USER CONTACT:

DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: PROJECT START: 01/01/78

DATE NEEDED: FY80 USER AGREEMENT ON: 10/28/77 PROJECT END: 09/30/81

IDENTIFICATION OF REQUEST

TOXICITY AND RADIOACTIVITY OF URANYL FLOURIDE (UO₂F₂)/STUDY OF UF₆/UO₂F₂ IN EXPERIMENTAL ANIMALS

BASIS FOR NEED

THERE IS A NEED FOR INFORMATION ON THE TOXICITY AND RADIOTOXICITY OF URANYL FLOURIDE TO ASSIST IN DEVELOPING SUPPLEMENTARY GUIDANCE ALREADY PROVIDED ON THE BIOASSAY OF OTHER URANIUM COMPOUNDS IN REGULATORY GUIDE 8.11 AND THE ASSOCIATED REPORT WASH-1251 ON APPLICATIONS FOR BIOASSAY OF URANIUM.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

* SEE SD 77-4.

REFERENCE NUMBER: SD 77-25 FIN # ASSIGNED TO: SRR CONTRACTOR: SANDIA
RES CONTACT: M. CULLINGFORD USER CONTACT:
DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: PROJECT START: 10/00/78
DATE NEEDED: FY80 USER AGREEMENT ON: PROJECT END: 09/00/80

IDENTIFICATION OF REQUEST

RISK ASSESSMENT FOR THE FRONT END OF THE NUCLEAR FUEL CYCLE

BASIS FOR NEED

THERE IS A NEED TO IDENTIFY AND CATEGORIZE VARIOUS ACCIDENTS WHICH CAN BE USED TO CHARACTERIZE CERTAIN FUEL CYCLE FACILITIES, INITIALLY, MILLS AND LWR FUEL FABRICATION. THE FREQUENCY OF SUCH ACCIDENTS NEED TO BE ESTIMATED AND SOURCE TERMS DEVELOPED DESIGNATION RELEASE OF HAZARDOUS MATERIALS TO THE ENVIRONMENT BY TYPE (ISOTOPE, CHEMICAL), QUANTITY, AND MODE (PLUME, SPILL, ETC.). RELEASE OF BOTH RADIOACTIVE AND NON-RADIOACTIVE MATERIALS SHOULD BE TREATED.

THE SOURCE TERMS WILL BE USED IN CONSEQUENCE MODELS WHICH IN CONJUNCTION WITH FREQUENCY ESTIMATES WILL CHARACTERIZE THE PROBABILITIES AND CONSEQUENCES OF OPERATION OF THE VARIOUS FACILITIES. SPECIFIC SITING CRITERIA WILL BE DEVELOPED BASED ON THIS INFORMATION.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

WORK IS ANTICIPATED TO BEGIN IN OCTOBER, 1978.

REFERENCE NUMBER: SD 77-26 FIN # ASSIGNED TO: SAFER CONTRACTOR:
RES CONTACT: J. FOULKE USER CONTACT: R. ALEXANDER
DATE REQUESTED: 08/19/77 RESPONSE LTR DATE: 09/30/78 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

EXPOSURE AND HEALTH FOLLOW-UP STUDIES OF LICENSEE EMPLOYEES

BASIS FOR NEED

A FEASIBILITY STUDY IS NEEDED TO DETERMINE THE MOST PRODUCTIVE DESIGN OF A FOLLOWUP STUDY OF OCCUPATIONAL EXPOSURES VS. HEALTH EFFECTS IN LICENSEE INSTALLATIONS, WITHOUT DUPLICATING ANY OF ERDA'S EFFORTS, BUT IN FACT UTILIZING METHODOLOGY ALREADY DEVELOPED BY ERDA FOR THEIR HEALTH AND MORTALITY STUDY. THE COMBINED NUMBER OF MAN-REM AND PERSON-YEARS AT RISK IN LICENSEE INSTALLATIONS IS PROBABLY COMPARABLE TO THAT OF ERDA INSTALLATIONS INCLUDED IN THE AEC HEALTH AND MORTALITY STUDY. THERE IS PROBABLY GREATER VARIABILITY IN THE RADIATION EXPOSURE RECORDS BETWEEN LICENSEE INSTALLATIONS THAN BETWEEN THOSE OF ERDA LABORATORIES. THE STUDY MUST CONSIDER BOTH 1) THE FEASIBILITY OF COLLECTING AT LEAST A LIMITED PROPORTION OF THE LARGE AMOUNT OF RETROSPECTIVE DATA FOR ORGANIZATION INTO A RETROSPECTIVE-PROSPECTIVE TYPE OF ANALYSIS; AND 2) THE OPTIMUM METHODS OF ESTABLISHING A PROSPECTIVE FOLLOWUP STUDY FOR THE MORE EXPOSED FRACTION OF THE FUTURE LICENSEE POPULATIONS. THIS STUDY SHOULD BE PERFORMED SO THAT SEVERAL YEARS FROM NOW DATA WILL BE AVAILABLE FOR USE IN AN EPIDEMIOLOGIC STUDY TO VERIFY THE ADEQUACY OF PRIOR RADIOLOGICAL SAFETY DOSE CRITERIA.

STATUS OF PROCESSING REQUEST FOR RESEARCH

THE RESEARCH IS PENDING AVAILABLE FUNDS.

COMMENTS

REFERENCE NUMBER: SD 77-27* FIN # B5790 ASSIGNED TO: SAFER CONTRACTOR: SAI

RES CONTACT: W. LAHS

USER CONTACT: N. EISENBERG, D. HOPKINS

DATE REQUESTED: 04/08/76 RESPONSE LTR DATE: 06/07/77 PROJECT START: 08/14/78
05/10/76
04/15/77
04/18/76

DATE NEEDED: USER AGREEMENT ON: 06/22/77 PROJECT END: 08/13/79
08/12/78

IDENTIFICATION OF REQUEST

SCOPING SPENT FUEL TRANSPORT ACCIDENTS

BASIS FOR NEED

THERE IS A NEED TO AFFIRM OR CHANGE THE TECHNICAL BASIS FOR TPSB PRODUCTS (RULES, STANDARDS, GUIDES, ENVIRONMENTAL SURVEYS, EIS'S) RELATED TO TRANSPORTATION OF SPENT FUEL. IN PARTICULAR, THE TECHNICAL BASIS FOR CHAPTER V (DETAILED ANALYSIS OF THE ENVIRONMENTAL IMPACT OF TRANSPORTING IRRADIATED FUEL FROM A TYPICAL LIGHT WATER NUCLEAR REACTOR IN ACCORDANCE WITH PRESENT REGULATORY STANDARDS AND REQUIREMENTS) OF WASH-1238 (ENVIRONMENTAL SURVEY OF TRANSPORTATION OF RADIOACTIVE MATERIALS TO AND FROM NUCLEAR POWER PLANTS) IS TO BE ASSESSED AND UPDATED (AFFIRMED OR CHANGED), AS REQUIRED.

THE INFORMATION FROM THIS SCOPING STUDY WILL ASSIST THE NRC STAFF IN FORMULATING ITS POSITION REGARDING ACCIDENTAL RELEASES FROM IRRADIATED FUEL CASKS. THE POSITION IS SET OUT IN WASH-1238 THAT WILL BE REVISED IN FY 1979. THE FINAL RESEARCH RESULTS WILL ALSO BE A BASIS FOR AMENDMENT OF TABLE 5-4 IN 10 CFR PART 51 SCHEDULED TO BE INITIATED IN FY 1979 AND PUBLISHED IN FY 1980-1981.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETE

COMMENTS

REQUESTS WERE MEMO'S FROM ARLOTTO AND MINOGUE.

* SEE SD 77-15

DOCUMENT ISSUED: NUREG/CR-0811

REFERENCE NUMBER: SD 77-28 FIN # ASSIGNED TO: SAFER CONTRACTOR:
RES CONTACT: R. SHEPHARD USER CONTACT: R. JONES
DATE REQUESTED: 10/03/77 RESPONSE LTR DATE: 11/08/77 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: 11/23/77 PROJECT END:

IDENTIFICATION OF REQUEST

SYSTEMATIC ERROR OF MEASUREMENT FOR SAFEGUARDING SPECIAL NUCLEAR MATERIAL

BASIS FOR NEED

TO ASSIST LICENSEES IN ESTABLISHING MEASUREMENT CONTROL AND ACCOUNTING PROGRAMS TO MEET THE REGULATORY REQUIREMENTS AS STATED IN PARAGRAPH 70.57 (B) (8) OF 10 CFR 70: THE MEASUREMENT CONTROL "PROGRAM SHALL GENERATE CURRENT DATA ON THE PERFORMANCE OF MEASURING PROCESSES, INCLUDING, AS APPROPRIATE, VALUES FOR BIAS CORRECTIONS AND THEIR UNCERTAINTIES, RANDOM ERROR VARIANCES, AND LIMITS FOR SYSTEMATIC ERRORS...". PARAGRAPH 70.57 (B) (8)(I) STATES THAT THE PROGRAM SHALL INCLUDE "THE ONGOING USE OF STANDARDS FOR CALIBRATION AND CONTROL OF ALL APPLICABLE MEASUREMENT SYSTEMS. CALIBRATIONS SHALL BE REPEATED WHENEVER ANY SIGNIFICANT CHANGE OCCURS...OR WHEN PROGRAM DATA ...INDICATE A NEED FOR RECALCULATION. CALIBRATIONS AND TESTS SHALL BE BASED UPON REFERENCE STANDARDS."

STATUS OF PROCESSING REQUEST FOR RESEARCH

- 1) RESPONSE LETTER TRANSMITTED TO SD ON 11/8/77, INDICATING THAT THE RESEARCH REQUESTED COULD NOT BE CARRIED OUT WITH OUR EXISTING BUDGET COMMITMENTS. FOUR ALTERNATE ACTIONS WERE PROPOSED FOR SD CONSIDERATION.
- 2) LETTER RECEIVED FROM R. MINOGUE ON 11/23/77, INDICATING THAT ALTERNATE #2, PROPOSED ABOVE, WAS THE SD CHOICE FOR IMPLEMENTING THE RESEARCH. THE ACTION REQUIRED IS TO: "RE-PRIORITIZE EXISTING NRS PROJECT TO INCORPORATE THE SYSTEMATIC ERROR STUDY SUCH THAT A FINISHED PRODUCT CAN BE COMPLETED BY THE END OF FY 78".

COMMENTS

NOTE FROM G. RIVENBARK TO C. JUPITER ON 2/14/78 INDICATED THAT THE WORK REQUESTED IS BEING CONDUCTED IN THE MATERIALS PROTECTION STANDARDS BRANCH OF SD, AND RES NEED NOT CONTINUE ITS CONSIDERATION.

_06/14/79 - DELETE PER SD INSTRUCTIONS.

REFERENCE NUMBER: SD 77-30 FIN # B2283 ASSIGNED TO: SAFER CONTRACTOR: PNL
RES CONTACT: J. FOULKE USER CONTACT: S. MCGUIRE
DATE REQUESTED: 12/05/77 RESPONSE LTR DATE: 06/20/78 PROJECT START: 06/01/78
DATE NEEDED: ASAP USER AGREEMENT ON: 07/18/78 PROJECT END: CONTINUING

IDENTIFICATION OF REQUEST

SOLUBILITY OF YELLOWCAKE IN THE HUMAN RESPIRATORY TRACT

BASIS FOR NEED

BIOASSAY RESULTS THAT HAVE BEEN RECEIVED FROM THE ATLAS URANIUM MILL INDICATE THAT YELLOWCAKE MAY BE CONSIDERABLY MORE SOLUBLE IN THE HUMAN RESPIRATORY TRACT THAN WE HAVE ASSUMED IN THE PAST. IF THESE RESULTS ARE VALID, CHEMICAL DAMAGE TO THE KIDNEY IS THE PRINCIPAL HEALTH EFFECT OF CONCERN RATHER THAN RADIATION DOSE TO THE LUNG. AS A RESULT OF THE ATLAS MILL BIOASSAY RESULTS, AS WELL AS A THEORETICAL ANALYSIS PERFORMED BY THE SD STAFF, IT WAS RECOMMENDED TO NMSS AND IE THAT AS A MATTER OF PRUDENCE, THEY CONSIDER YELLOWCAKE TO BE A SOLUBLE COMPOUND UNTIL THERE IS CONVINCING EVIDENCE THAT IT IS NOT. THE VALIDITY OF THE ATLAS MILL BIOASSAY RESULTS HAS BEEN QUESTIONED BY REGION IV PERSONNEL, WHO POINT OUT THAT THE URINE SPECIMENS MAY HAVE BEEN CONTAMINATED WHEN SUBMITTED, OR IN THE ATLAS MILL LABORATORY WHICH IS ALSO USED FOR PROCESS SAMPLES. THEREFORE, NMSS, IE AND SD STAFF MEMBERS HAVE AGREED THAT A RESEARCH EFFORT IS NECESSARY TO VERIFY THAT CLASSIFICATION OF YELLOWCAKE AS A SOLUBLE COMPOUND IS TECHNICALLY CORRECT.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETE

COMMENTS

REFERENCE NUMBER: SD 77-31 FIN # A1196 ASSIGNED TO: SAFER CONTRACTOR: LOVELACE

RES CONTACT: J. FOULKE

USER CONTACT:

DATE REQUESTED: 12/22/77 RESPONSE LTR DATE:

PROJECT START: 10/01/77

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END: 09/30/85

IDENTIFICATION OF REQUEST

INHALATION OF FUEL MATERIALS/HEALTH AND ENV. INHALED RADIOACTIVE POLLUTANTS

BASIS FOR NEED

TO SUPPORT SD'S UNDERSTANDING OF THE BIOLOGICAL EFFECT OF ACTUAL PRODUCTION LINE FUEL MATERIALS, INHALED BY PLANT WORKERS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: SD 78-1 FIN # B4124 ASSIGNED TO: SAFER CONTRACTOR: SREL
B3027 UC - LNM

RES CONTACT: J. FOULKE/ E. HELD

USER CONTACT: M. PARSONT

DATE REQUESTED: 01/13/78 RESPONSE LTR DATE: PROJECT START: 10/01/77
07/00/76

DATE NEEDED: USER AGREEMENT ON: PROJECT END: 09/30/84
CONT.

IDENTIFICATION OF REQUEST

SOIL-PLANT TRANSFER OF PLUTONIUM AND OTHER TRANSURANIC ELEMENTS/RADIONUCLIDE
PATHWAYS FROM AGRO-ECOSYSTEMS

BASIS FOR NEED

TO PROVIDE SD WITH THE USE OF CURRENT DATA ON THE ECOLOGICAL FATE OF PLUTONIUM, OTHER
OTHER TRANSURANIC ELEMENTS AND FISSION PRODUCTS TO ALLOW FOR ACCURATE DOSE ESTIMATION
AND RISK COMPUTATIONS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

DOCUMENTS ISSUED:

B3027 - NUREG/CR-0317, 10/78
NUREG/CR-0700, 03/79
NUREG/CR-0701, 03/79
NUREG/CR-0997, 09/79

REFERENCE NUMBER: SD 78-2 E.N. # B0421 ASSIGNED TO: RSR CONTRACTOR: ORNL

RES CONTACT: W. FARMER USER CONTACT: G. WROBEL

DATE REQUESTED: 01/06/78 RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

SAFETY RELATED OPERATOR ACTION

BASIS FOR NEED

TO PROVIDE A DATA BASE TO EVALUATE THE ACCEPTABILITY OF PERFORMING SAFETY - RELATED OPERATOR ACTIONS DURING THE MITIGATION OF CERTAIN DESIGN BASIS EVENTS BASED ON THE NUMBER AND TIMING OF THE ACTIONS REQUIRED.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED

COMMENTS

DOCUMENT ISSUED: NUREG/CR-0901, 07/79

REFERENCE NUMBER: SD 78-4 FIN # ASSIGNED TO: CONTRACTOR:
RES CONTACT: W. LAHS USER CONTACT:
DATE REQUESTED: 02/14/78 RESPONSE LTR DATE: 01/10/78 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: 03/06/78 PROJECT END:

IDENTIFICATION OF REQUEST

CRITERIA AND TEST METHODS FOR CERTIFYING AIR-PURIFYING RESPIRATOR AGAINST RADIOIODINE.

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: SD 78-5* FIN # A7039 ASSIGNED TO: SAFER CONTRACTOR: LASL
RES CONTACT: J. FOULKE USER CONTACT: J. CAPLAN
DATE REQUESTED: 02/14/78 RESPONSE LTR DATE: PROJECT START: 10/01/77
DATE NEEDED: CONT. USER AGREEMENT ON: PROJECT END: CONT.

IDENTIFICATION OF REQUEST

ASSESSMENT OF RESPIRATORY PROTECTION SYSTEMS.

BASIS FOR NEED

THE VALUE OF RESPIRATORY PROTECTION DEVICES IN ATMOSPHERES CONTAINING RADIONUCLIDES IS TO BE DETERMINED BY TESTING IN CONTROLLED EXPERIMENTS TO DEVELOP A BASES FOR OCCUPATIONAL STANDARDS GOVERNING THE USE OF SUCH EQUIPMENT IN LICENSED FACILITIES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

ON-GOING PROJECT.

COMMENTS

*SEE SD 77-6.

REFERENCE NUMBER: SD 78-6 FIN # ASSIGNED TO: SRR CONTRACTOR:
RES CONTACT: T. BUHL USER CONTACT: E. IMBRO
DATE REQUESTED: 02/24/78 RESPONSE LTR DATE: 04/14/78 PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

EVALUATION OF ALTERNATIVE PROVISIONS FOR ASSURING SAFE SHUTDOWN AND COOLDOWN FUNCTIONS OF REACTOR PLANTS.*

BASIS FOR NEED

TO PROVIDE SD AND NRR WITH A BASIS FOR DEVELOPING REGULATORY GUIDELINES FOR FUTURE PLANTS. WITH RESPECT TO ALTERNATIVE PROVISIONS FOR ASSERTING SAFE SHUTDOWN AND COOLDOWN FUNCTIONS OF REACTOR PLANTS CONSIDERING A VARIETY OF EMERGENCY CONDITIONS NOT INVOLVING A LOCA.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

COSPONSORED BY NRR AND CROSS-REFERENCED ON NRR 78-6.

REFERENCE NUMBER: SD 78-7 FIN # ASSIGNED TO: SAFER CONTRACTOR:
RES CONTACT: D. SOLBERG USER CONTACT:
DATE REQUESTED: 06/22/78 RESPONSE LTR DATE: PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

RESEARCH IN SUPPORT OF LICENSING ACTIONS ON THE STORAGE OF
SPENT FUEL IN AN ISFSI.

BASIS FOR NEED

THE REQUESTED DATA IS NEEDED TO EXPAND THE TECHNICAL BASE FOR
REGULATORY GUIDES AND LICENSING ACTIONS ON THE STORAGE OF SPENT FUEL IN AN ISFSI.

STATUS OF PROCESSING REQUEST FOR RESEARCH

RESEARCH REVIEW GROUP DETERMINED THAT THIS NEED WAS OF A LOW PRIORITY. OTHER PRIORITY
RESEARCH ON REACTOR DECOMMISSIONING HAS BEEN FUNDED INSTEAD. FUNDING IN FY 1982 HAS BEEN
REQUESTED.

COMMENTS

REFERENCE NUMBER: SD 78-8 FIN # 82296 ASSIGNED TO: SAFER CONTRACTOR: PNL
RES CONTACT: D. SOLBERG USER CONTACT: D. CALKINS
DATE REQUESTED: 06/27/78 RESPONSE LTR DATE: 12/01/78 PROJECT START: 01/16/79
DATE NEEDED: 06/81 USER AGREEMENT ON: 12/18/78 PROJECT END: 09/30/82

IDENTIFICATION OF REQUEST

LONG LIVED ACTIVATION PRODUCTS IN REACTOR MATERIALS.
IDENTIFY AND CHARACTERIZE ACTIVATED IMPURITIES IN REACTOR MATERIALS
OF IMPORTANCE TO DECOMMISSIONING.

BASIS FOR NEED

RECENT STUDIES SHOWED THAT TRACE IMPURITIES IN MATERIALS OF CONSTRUCTION
MAY PROVE TO BE A MAJOR LIMITATION IN THE DECOMMISSIONING OF NUCLEAR REACTORS. GENERALLY,
THE PROBLEM ARISES BECAUSE NEUTRON IRRADIATION OF AN IMPURITY OVER THE LIFETIME OF THE
REACTOR PRODUCES A NUCLIDE HAVING A LONG HALF LIFE WHICH DECAYS WITH THE EMISSION OF
PENETRATING RADIATION. AFTER THE CO 60, THE MAJOR ACTIVATED NUCLIDE, HAS DECAYED TO
INNOCUOUS LEVELS THESE MINOR IMPURITY NUCLIDES HAVING LONGER HALF LIVES BECOME THE
RADIOLOGICAL LIMITATION.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: SD 78-9* FIN # ASSIGNED TO: RSR CONTRACTOR:
 RES CONTACT: E. DAVIDSON USER CONTACT:
 DATE REQUESTED: 08/12/78 RESPONSE LTR DATE: PROJECT START:
 DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

EVALUATION OF GENERAL ENGINEERING BASIS AND RISK OF A REPRESSURIZATION SYSTEM IF USED AS A PRIMARY MEANS FOR COMBUSTIBLE GAS CONTROL FOLLOWING A LOCA.

BASIS FOR NEED

NRR & SD REQUEST RES TO PERFORM AN EVALUATION OF THE GENERAL ENGINEERING BASIS AND RISK OF USING A REPRESSURIZATION SYSTEM AS A PRIMARY MEANS FOR COMBUSTIBLE GAS CONTROL FOLLOWING A LOCA. THE RESULTS OF THIS STUDY WILL BE USED AS A BASIS FOR DEVELOPING REGULATORY GUIDANCE FOR FUTURE PLANTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

* WITH NRR 78-14.

REFERENCE NUMBER: SD 78-10 FIN # B3033 ASSIGNED TO: SAFER CONTRACTOR: UC - DAVIS
 RES CONTACT: J. FOULKE USER CONTACT: S. WHITFIELD/M. PARSONT
 DATE REQUESTED: 12/18/78 RESPONSE LTR DATE: PROJECT START: 1979
 DATE NEEDED: USER AGREEMENT ON: PROJECT END: 09/30/82

IDENTIFICATION OF REQUEST

GENETIC IMMUNE DISORDERS AND ANEMIA IN RADIATION LEUKEMOGENESIS/INFLUENCE OF GENERIC IMMUNE DISORDERS

BASIS FOR NEED

TO DETERMINE HEALTH EFFECTS FROM EXPOSURE TO LOW-LEVEL IONIZING RADIATION. STUDY CHANGES IN THE BLOOD PICTURE OF ANIMALS DUE TO RADIATION EXPOSURE. THIS WORK IS PART OF THE COMMISSION RESPONSE TO THE CONGRESSIONAL MANDATE TO STUDY THE EFFECTS OF LOW LEVEL RADIATION AND TO ASSESS THE HEALTH EFFECTS OF CHRONIC RADIATION EXPOSURES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

THIS RESEARCH IS IN THE SECOND YEAR OF A FIVE YEAR STUDY.

COMMENTS

REFERENCE NUMBER: SD 78-11 FIN # B3029 ASSIGNED TO: SAFER CONTRACTOR: UC - DAVIS
RES CONTACT: J. FOULKE USER CONTACT: S. WHITFIELD/M. PARSONS
DATE REQUESTED: 12/18/78 RESPONSE LTR DATE: PROJECT START: 10/01/77
DATE NEEDED: USER AGREEMENT ON: PROJECT END: 09/30/80

IDENTIFICATION OF REQUEST

BIODOSIMETRIC CONFIRMATION OF DOSE RATE AMELIORATION FACTORS

BASIS FOR NEED

TO DETERMINE HEALTH EFFECTS FROM EXPOSURE TO LOW-LEVEL IONIZING RADIATION. THIS RESEARCH IS PART OF THE COMMISSION RESPONSE TO THE CONGRESSIONAL MANDATE TO ASSESS THE TEOLOGICAL HEALTH EFFECTS OF LOW LEVEL RADIATION EXPOSURE.

STATUS OF PROCESSING REQUEST FOR RESEARCH

RESEARCH IS IN THE FOURTH YEAR OF EXPOSURE AND THE ACCUMULATED DOSE HAS NOW REACHED LEVELS WHERE CELLULAR CHANGES ARE EXPECTED TO BECOME EVIDENT.

COMMENTS

REFERENCE NUMBER: SD 79-1* FIN # B6621
86788 ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT:

USER CONTACT: C. MACDONALD, D. NELLIS

DATE REQUESTED: 03/05/79 RESPONSE LTR DATE: 11/06/79 PROJECT START: 06/80
06/09/80

DATE NEEDED: USER AGREEMENT ON: 11/27/79 PROJECT END: FY 85

IDENTIFICATION OF REQUEST

MODEL STUDY OF TRANSPORTATION SAFETY

BASIS FOR NEED

DETERMINE IF CURRENT PACKAGE PERFORMANCE STANDARDS SHOULD BE REVISED TO REFLECT
EXTREMELY SEVERE ACCIDENT ENVIRONMENTS. DEVELOP COST EFFECTIVE BASIS FOR ESTABLISHING
POST TEST ACCEPTANCE STANDARDS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETE.

COMMENTS

RFPA 80-182 OFFERORS BEING EVALUATED 05/80.

* SEE NMSS 79-3.

REFERENCE NUMBER: SD 79-2* FIN # B3035 ASSIGNED TO: RSK CONTRACTOR: ETEC
 RES CONTACT: D. REIFF USER CONTACT: W. ANDERSON
 DATE REQUESTED: 03/26/79 RESPONSE LTR DATE: 07/02/79 PROJECT START: 08/01/79
 DATE NEEDED: USER AGREEMENT ON: 07/26/79 PROJECT END: 09/30/83

IDENTIFICATION OF REQUEST

SNUBBER SYSTEMS APPLICATION DESIGN AND TESTING

BASIS FOR NEED

TO PROVIDE INFORMATION TO DEVELOP REGULATORY GUIDES, TECHNICAL SPECIFICATIONS AND OTHER LICENSING REQUIREMENTS IN NUCLEAR POWER PLANTS. THE RESULTS SHOULD HELP ASSURE THAT SAFETY SYSTEMS HAVE THE PROPER BALANCE BETWEEN NECESSARY STRUCTURAL RESTRAINT TO ABSORB ACCIDENT AND SEISMIC LOADS, AND OTHER DYNAMIC EVENTS -- AND THE FLEXIBILITY DESIRABLE DURING NORMAL OPERATION.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

* SEE SD 77-9.

REFERENCE NUMBER: SD 79-3 FIN # B6760 ASSIGNED TO: SAFER CONTRACTOR: LANSL
RES. CONTACT: R. SHEPARD USER CONTACT: S. P. TUREL/W. BROWN
DATE REQUESTED: 01/10/79 RESPONSE LTR DATE: 08/06/80 PROJECT START: FY 80
DATE NEEDED: USER AGREEMENT ON: PROJECT END: FY 83

IDENTIFICATION OF REQUEST

MATERIAL CONTROL AND ACCOUNTING HOLDUP STUDIES

BASIS FOR NEED

TO GAIN INFORMATION FOR CHARACTERIZING MATERIAL HOLDUP BEHAVIOR IN
EQUIPMENT AND CONTAINMENT SYSTEMS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: SD 79-4 FIN # A2218 ASSIGNED TO: CONTRACTOR:
RES CONTACT: USER CONTACT:
DATE REQUESTED: 09/24/79 RESPONSE LTR DATE: PROJECT START: 02/01/80
DATE NEEDED: USER AGREEMENT ON: PROJECT END: CONTINUING

IDENTIFICATION OF REQUEST
 DECAY SCHEME OF TECHNETIUM 99M.

BASIS FOR NEED

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMPLETED.

COMMENTS

REFERENCE NUMBER: SD 79-6 FIN # A2218 ASSIGNED TO: SAFER CONTRACTOR: AHL
 RES CONTACT: J. D. FOULKE USER CONTACT: D. S. FLACK
 DATE REQUESTED: 12/07/79 RESPONSE LTR DATE: 01/30/80 PROJECT START: 02/01/80
 DATE NEEDED: USER AGREEMENT ON: 02/07/30 PROJECT END: CONTINUING

IDENTIFICATION OF REQUEST

GASTROINTESTINAL ABSORPTION FACTORS FOR PLUTONIUM AND OTHER
 ACTINIDE ELEMENTS

BASIS FOR NEED

TO PROVIDE A BASIS FOR DETERMINING THE VALUE OF THE GASTROINTESTINAL
 ABSORPTION FACTORS TO DERIVE MAXIMUM PERMISSIBLE CONCENTRATIONS IN
 DRINKING WATER.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: SD 80-1 FIN # B6649 ASSIGNED TO: SAFER CONTRACTOR: ANL
RES CONTACT: J. D. FOUIKE USER CONTACT: H. PETTENGILL
DATE REQUESTED: 03/04/80 RESPONSE LTR DATE: 08/01/80 PROJECT START: 10/01/80
DATE NEEDED: USER AGREEMENT ON: 08/15/80 PROJECT END: 09/30/81

IDENTIFICATION OF REQUEST

LOW DOSE EFFECTS OF NEUTRONS AND GAMMA RADIATION

BASIS FOR NEED

TO RECONSTRUCT EXPERIMENTALLY EXPOSURE CIRCUMSTANCES COMPARABLE TO THOSE EXPERIENCED BY WORKERS TO DETERMINE (1) IF NEUTRON RADIATION RESPONSE CURVES REMAIN LINEAR AT LOW DOSES, (2) WHETHER X-RAY AND GAMMA RADIATION RESPONSE CURVES FOLLOW A QUADRATIC RESPONSE AT LOW DOSES; (3) TO EMPERICALLY DETERMINE THE RBE VALUE FOR LOW DOSES OF PROTRACTED NEUTRON EXPOSURES.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

REFERENCE NUMBER: SD 80-2 FIN # A9045 ASSIGNED TO: CONTRACTOR: ORNL
RES CONTACT: FARMER USER CONTACT: E. WENZINGER
DATE REQUESTED: 08/15/80 RESPONSE LTR DATE: PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

SIMULATOR TECHNOLOGY

BASIS FOR NEED

TO PROVIDE TECHNICAL SUPPORT IN DEVELOPING RECOMMENDATIONS FOR REQUIREMENTS
FOR SPECIFYING AND VERIFYING NUCLEAR POWER PLANT SIMULATOR RESPONSE CHARACTERISTICS
TO ASSIST IN PROVIDING ADDITIONAL OPERATOR TRAINING IN RESPONSE TO ANTICIPATED
OPERATIONAL OCCURRENCES AND ACCIDENTS.

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

FUNDS TRANSFERRED FROM OSD TO RES TO CONDUCT RESEARCH.

REFERENCE NUMBER: SD 80-3 FIN # ASSIGNED TO: SAFER CONTRACTOR: NBS
RES CONTACT: R. SHEPARD USER CONTACT: J.L. TELFORD
DATE REQUESTED: 08/22/80 RESPONSE LTR DATE: PROJECT START:
DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

RESONANCE NEUTRON RADIOGRAPHY

BASIS FOR NEED

TO PROVIDE NRC CAPABILITY TO ACCURATELY AND PRECISELY CALIBRATE
INSTRUMENTS USED FOR NON-DESTRUCTIVE ASSAY OF URANIUM 235 CONTAINING
SCRAP

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

SEE NMSS MEMO TO SD 07/16/80 TO ADD AN INITIAL PHASE TO DETERMINE
THAT PRACTICAL NEUTRON SOURCE TECHNOLOGY CAN BE DEVELOPED TO FACILITATE
FIELD APPLICATION.

REFERENCE NUMBER: ACRS 79-1 FIN # ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: J. FOULKE USER CONTACT:

DATE REQUESTED: RESPONSE LTR DATE: PROJECT START:

DATE NEEDED: USER AGREEMENT ON: PROJECT END:

IDENTIFICATION OF REQUEST

SYNERGISTIC EFFECTS OF RAD. AND NON-RAD.

BASIS FOR NEED

ACRS REPORT TO CONGRESS

STATUS OF PROCESSING REQUEST FOR RESEARCH

COMMENTS

NO MONEY AVAILABLE

REFERENCE NUMBER: ACRS 79-2 FIN #

ASSIGNED TO: SAFER CONTRACTOR:

RES CONTACT: J. FOULKE

USER CONTACT:

DATE REQUESTED:

RESPONSE LTR DATE:

PROJECT START:

DATE NEEDED:

USER AGREEMENT ON:

PROJECT END:

IDENTIFICATION OF REQUEST

NEUTRON DOSIMETRY EVALUATION

BASIS FOR NEED

ACRS REPORT TO CONGRESS

STATUS OF PROCESSING REQUEST FOR RESEARCH

(PROPOSALS RECEIVED)

COMMENTS

DISTRIBUTION

Office of the Executive Director for Operations	2
Office of Inspection & Enforcement	5
Office of Nuclear Material Safety & Safeguards	5
Office of Nuclear Reactor Regulation	20
Office of Nuclear Regulatory Research	60 35
Office of Standards Development	5
Office of Management & Program Analysis	5
Office of the Controller	2
Office of Policy Evaluation	2
Advisory Committee on Reactor Safeguards	16 20
Atomic Safety & Licensing Board Panel	2