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Dalwyn R. Davidson
VICE PRESIDENT
SYSTEM ENGINEERING AND CONSTRUCTION

March 22, 1982

A. Schwencer
Chief, Licensing Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
Response to Action Items -
NRC Management Audit at
PNPP, 1/25 - 1/29

Dear Mr. Schwencer:

This letter transmits our responses to action items identified by the NRC Management Audit Team during a site visit at PNPP conducted from 1/25/82 - 1/29/82.

It is our intention to revise Chapter 13 of the FSAR to incorporate any commitments made in the attached responses.

Very Truly Yours,

Dalwyn R. Davidson

Dalwyn R. Davidson
Vice President
System Engineering and Construction

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Action Item 1:

Training Coordination at PNPP

Response

1a). Training Section Description

On February 15, 1982, the Nuclear Project Training Section was formed as a new Section in the Perry Project Services Department in response to the NRC Team's concerns about training. Mr. Cyril M. Shuster, General Supervising Engineer, was transferred from System Planning Engineering to head the new Training Section. Eight persons (6 professional, 2 clerical) are assigned to the Training Unit in Perry Plant Department with responsibility for Operations and Maintenance Training. Ongoing training activities include the following: CEI has entered into a lease/purchase agreement with GE for the Perry Simulator now located in Tulsa, Oklahoma; General Electric is being used to provide instructors for Operator Training on the Simulator; Ohio State University is under contract to develop a General Employee Training Program; and an arrangement is in effect with Ohio State University and Lakeland Community College wherein instructors from these institutions present college level courses in math and science on-site. The objective of the newly established Section is to provide total site training coordination, so as to insure the Project is staffed with trained, qualified individuals capable of supporting, maintaining, and operating the Perry Plant.

The Section organization chart has been established, as shown on attached Figure 1, with staff size shown as of March 8, 1982. As of March 8, Section manning was at five persons, with plans to enlarge to seven persons by the end of March.

The initial Nuclear Project Training Section organization design consists of a Program Developmental Activity, a General Nuclear Training Activity, and a Training Services and Support Activity. Initially, this Section is responsible for consolidating all on-going training in the Construction/Support Departments and maintaining close coordination with the Perry Plant Department Training Unit in the communications of information, development of programs, development of procedures, and recordkeeping activities.

The ultimate assimilation of the Perry Plant Training Unit into the Nuclear Project Training Section is as shown on Figure 2. The time frame for bringing the two elements together is currently projected as being

Action Item 1:

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at fuel load, so as not to cause any disturbances for the current operator training efforts. The estimated manning of the overall training organization will be approximately 20-22 persons plus consultants as needed. Approximately 75% of the staff will be professional persons.

1b). BWR training for PPD staff

Observation training will be scheduled for Health Physics personnel. The Health Physicist, whose prior experience has been chiefly in PWR plants, will spend at least four weeks at an operating BWR. This will be accomplished prior to scheduled fuel load at the Perry Plant.

Selected health physics technicians, at least five, will participate in radiation protection activities at commercial BWR plants for at least four weeks each.

Observation training for the Operations and Maintenance Section General Supervisors will be supplemented with at least four weeks at an operating BWR plant prior to the scheduled fuel load at the Perry Plant.

1c). Operator Qualifications Pipeline

The operator qualification pipeline currently includes 35 persons with ten additional nuclear power plant experienced people to be hired during the first half of 1982 for training prior to fuel load. This number does not include upper management, training and technical staff engineers who are also completing licensed operator training (12 of 17 to be trained presently certified at the SRO level).

Expectations are that there will be 40 operator licensee candidates trained prior to fuel load to ultimately fill 12 SRO positions (six Shift Supervisors and six Unit Supervisors), and 12 RO positions (Supervising Operators). This allows for 16 additional license candidates to provide for last-minute attrition and examination failures. While the goal is to staff for six shift rotation, fewer licenses could suffice for a limited period of time to allow re-examination in case of unexpected failures.

Nuclear Project
Training Section

Phase 4
Time Frame Fuel Load

Perry Project
Services Department

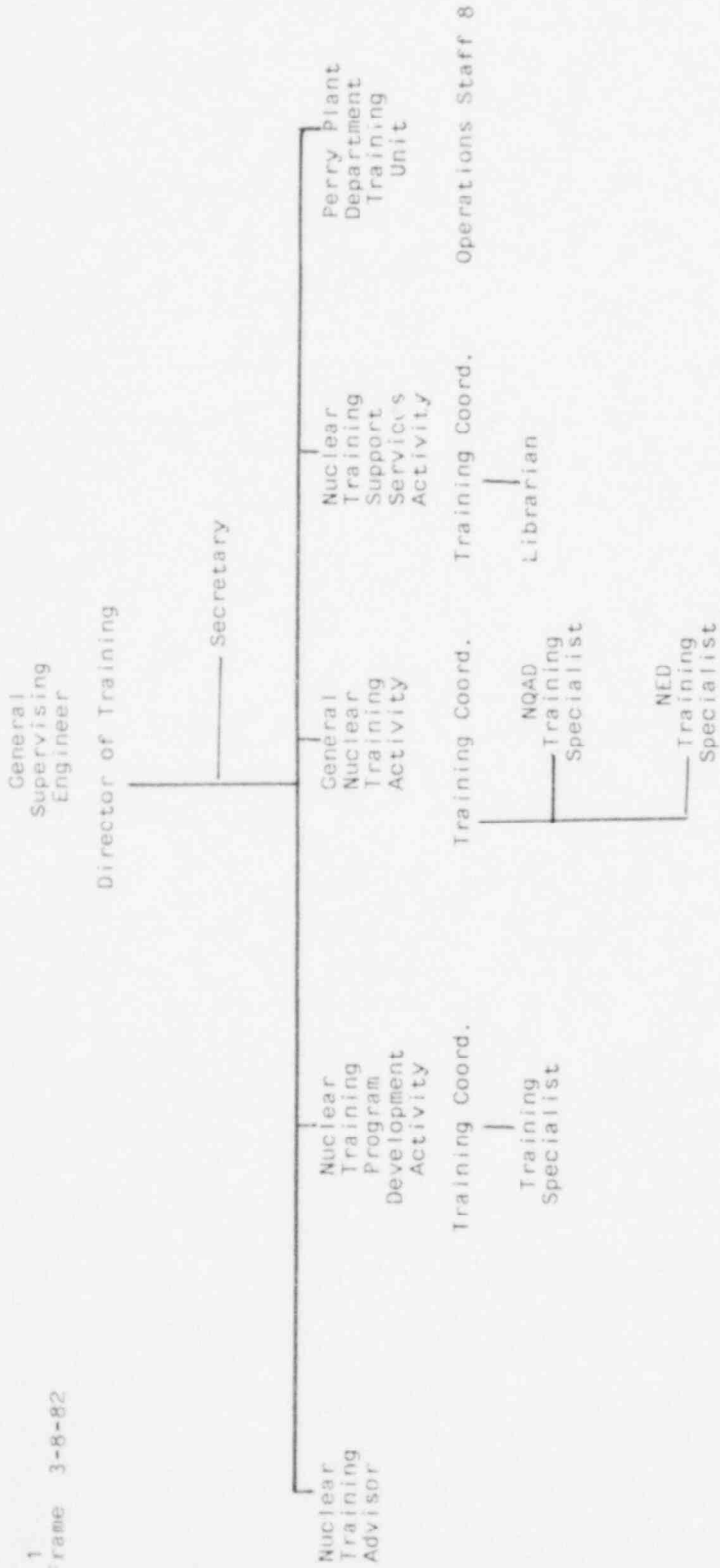


Figure 2

197/G/1/kf

Staff Projection
20 - 22 Persons

Phase 1
Time Frame 3-8-82



--- Coordination
Staff 5

Figure 1

197/G/2/kf

Action Item 2:

Availability of Operating Nuclear Power Plant
Experience in Plant Management in Operations Areas

Response

A person with operating nuclear power plant experience will be obtained in either an advisory capacity or integrated into the plant organization as Superintendent, Plant Operations for at least one year in advance of fuel load. This person will serve as a member of the Plant Operation Review Committee, and if not a permanent member of the Plant Staff, will remain in place at least for 12 months following fuel load.

In addition, each operating shift will have assigned to it a person with commercial BWR start-up experience during the period from fuel load until 100% power is attained or for one year, whichever comes first.

Action Item 3:

Letter of Commitment on the Reorganization
Plan for PNPP

Response

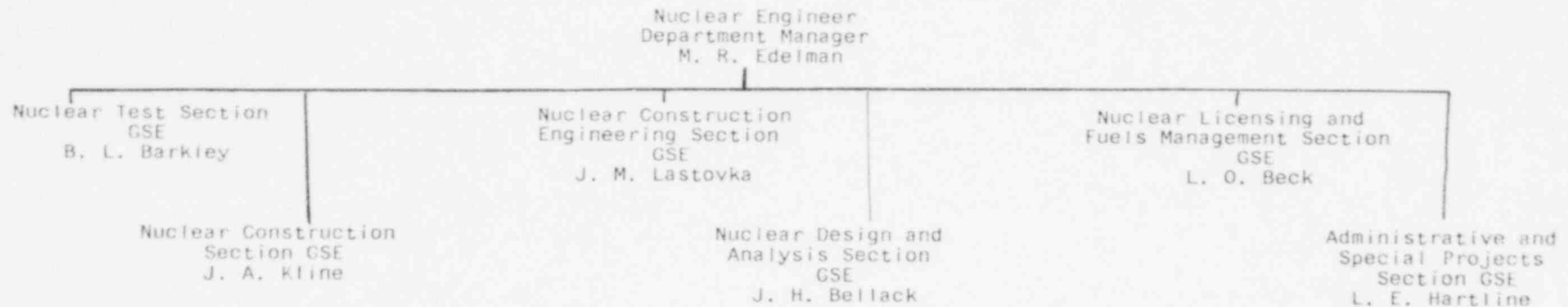
During a January 25, 1982, oral presentation to the NRC Management Audit Team, Managers of the PNPP Site Organization described current and future plans for the Site Organization. Described below are steps taken since the January audit as well as future plans to complete a full site reorganization to separate functions related to start-up and operation of Perry 1 from functions related to construction of Unit 2 six months prior to fuel load.

Two major changes have already occurred which respond to NRC and CEI concerns:

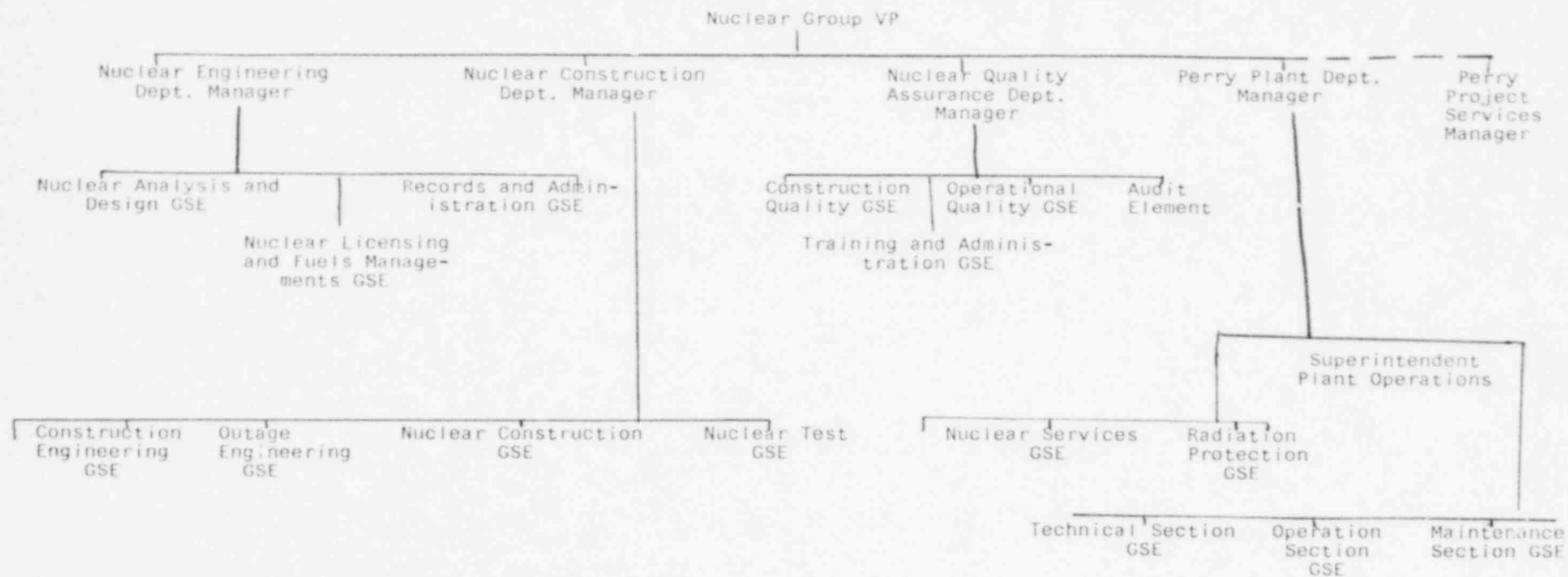
1. On February 15, 1982, the Nuclear Project Training Section was formed as a new section within the Perry Project Services Department. The objective of the newly established Section is to provide total site training coordination to insure that the PNPP Project is staffed with trained, qualified individuals capable of supporting, maintaining and operating the Perry Plant.
2. As of March 12, 1982, the Nuclear Engineering Department's position of General Supervising Engineer (GSE), Nuclear Design and Analysis has been split to form two GSE positions: GSE, Nuclear Construction Engineering section; and GSE, Nuclear Design and Analysis section. The attached organization chart shows the changes which have occurred.

The organizational changes described above are the first of several major changes which will occur between now and a date six months prior to fuel load. The numerous organizational charts attached show the current site organization compared to the site organization expected to be in place six months prior to fuel load of Perry 1. When these changes are initiated, an amended FSAR Chapter 13 will be transmitted to the NRC.

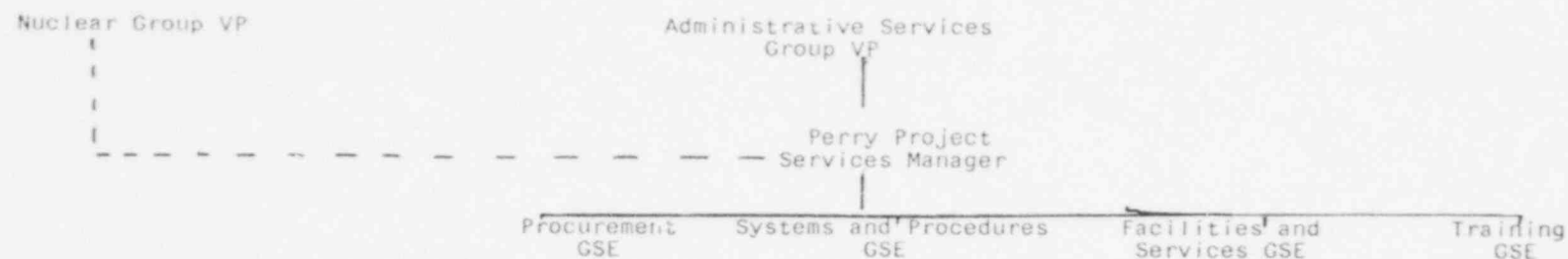
CHANGES TO THE NUCLEAR ENGINEERING DEPARTMENT SINCE THE JANUARY REVIEW:
DEPARTMENT ORGANIZATION AS OF MARCH 22, 1982



PNPP SITE ORGANIZATION: SIX MONTHS PRIOR TO FUEL LOAD OF PERRY 1



PNPP SITE ORGANIZATION: SIX MONTHS PRIOR TO FUEL LOAD OF PERRY 1 (Cont'd)



Action Item 4:

BWR-Operating Experience on Nuclear Safety
Review Board

Response

The Nuclear Safety Review Board will have as members at least two senior individuals with commercial BWR operating and/or management experience.

Action Item 5:

Adequacy of Plant Staffing Levels

Response

The proposed plant staffing has been reviewed as a result of additional commitments made to provide on shift an Instrument and Control Technician, a Shift Technical Advisor, a goal of six operating shifts and the consolidation of training in a separate organizational element. Thus, the total staffing expected at fuel load for Unit 1, devoted exclusively to Unit 1 operation, is as follows:

Total Site Staffing For Unit 1 Operation

Perry Plant Department	-	297
Nuclear Engineering Department (on site)	-	87
Project Services Department (Training)	-	20
Operational Quality Assurance (QA/QC)	-	<u>25</u>
Total Staff (Unit 1 Operation)	-	429

Based on these changes, the following is a tabulation of proposed staffing by section.

<u>Perry Plant Department</u>	<u>Units 1 & 2</u>	<u>Unit 1</u>
Management	3	3
Maintenance	155	85
Operations	101	63
Technical	82	53
Radiation Protection	56	43
Services	52	42
Security	<u>8</u>	<u>8</u>
Total	457	297

The training function, which at fuel load will report to the Manager, Project Services Department, will incorporate the licensed operator training as well as all the Perry Project personnel training. This function will require about 20-22 personnel. The Nuclear Engineering Department, including the Independent Safety Review Group, will be reorganized to support, on site, the operation of Unit 1. A separate department, Nuclear Construction Department, will assume responsibility for completing Unit 2 including pre-operational testing. The Nuclear Engineering Department is proposed to be staffed with about 87 employees. Operational Quality Assurance is also a separate reporting function with both QA and QC responsibility handled by a staff of 25 employees devoted exclusively to the Unit 1 operation.

Action Item 5:
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The above staffing does not include security personnel outside of the supervisory personnel.

The staffing described here provides for meeting all commitments for on-shift personnel without excessive reliance upon overtime in routine operation. Extensive provision for training time is included, and adequate numbers of entry-level personnel will ensure fully trained skills will be available as required as construction progresses and Unit 1 is completed.

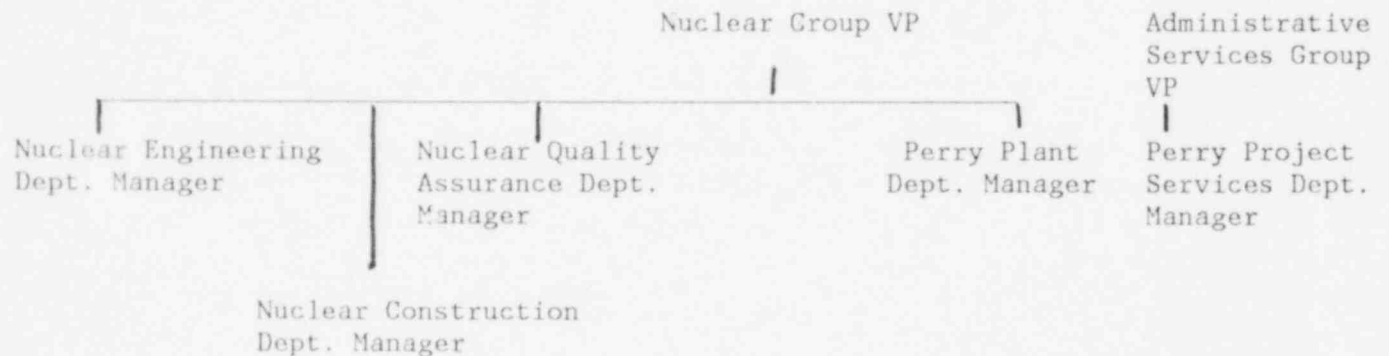
In addition to Unit 1 staffing for operation, there is located on site additional Engineering, Quality Assurance, Construction and Project Services staff involved with the continuing construction of Unit 2 as outlined previously under Action Item 3.

Action Item 6:

Engineering Support Staff for PNPP

Response

The Perry Nuclear Power Plant Site Organization will reorganize prior to fuel load for Perry 1 to separate the support functions for Perry 1 start-up and operation from the support functions for construction of Perry 2. Six months prior to fuel load for Perry 1, the site organization will be as follows:



The new Nuclear Engineering Department will provide engineering support to Perry 1 during its start-up and operation: the Department will have an initial staffing level at Perry 1 fuel load of about 87 employees. The Nuclear Analysis and Design, Nuclear Licensing and Fuels Management, and the Records and Administration Sections will report to the Manager of the Nuclear Engineering Department. Most of these individuals will be Cleveland Electric Illuminating Company employees. However, CEI will continue to retain Gilbert Commonwealth Associates to provide additional engineering support where necessary. General Electric, as NSSS supplier, will also be retained on a consulting basis where required.

The new Nuclear Construction Department will provide engineering support for Unit 2 construction. The Nuclear Construction, Nuclear Test, Construction Engineering and Outage Engineering Sections will report to the Manager of the Nuclear Construction Department. CEI will continue to retain Gilbert Commonwealth Associates as the Architect/Engineer for Perry 2 construction. Staffing levels for this department have not yet been projected.

Action Item 7:

FSAR Chapter on PNPP Compliance with NUREG 0737

Response

CEI will amend the PNPP/FSAR to include a new chapter describing the status of PNPP compliance with NUREG 0737.

Action Item 8:

Shift Staffing

Response

The shift staffing described in the FSAR Section 13.1.2.3 for the Perry Plant Control room, with two units operating, provides for six licensed personnel for the two units; three SRO's and three RO's. This staffing exceeds the NUREG 0737 interim guidance staffing level for Two Units, One Control Room configuration by one SRO license and is less than the interim guidance staffing level for Two Units, Two Control Rooms by one RO license.

The original Perry Plant control room design was arranged for optimizing the human factors impact for operators moving from one unit to the other while in the single control room. This was the basis for arranging the two control boards side by side with identical positioning of all operating devices located on each control board. As a result of fire protection considerations, a partition was installed between the two control boards with a normally closed door at the partition and for more effective command and control during emergency operation, an SRO has been added to each shift crew.

For starting up or shutting down a generating unit, two RO licensed operators are normally required. With three RO's available each shift, one RO will be regularly assigned to each unit with the third RO available for assignment to the unit which may be starting up or shutting down. It is not normally expected that both units would be in that mode of operation at the same time. If such would be the case, an additional RO will be provided by calling out or holding over an extra person if not available on shift. Thus, it does not represent the proper utilization of critically skilled manpower to require full time on shift the fourth RO licensed operator for those rare instances when he or she would be needed. Therefore, exception is taken to the interim staffing guidance for Two Units, Two Control Rooms as tabulated in NUREG 0737 I.A.1.3-4.