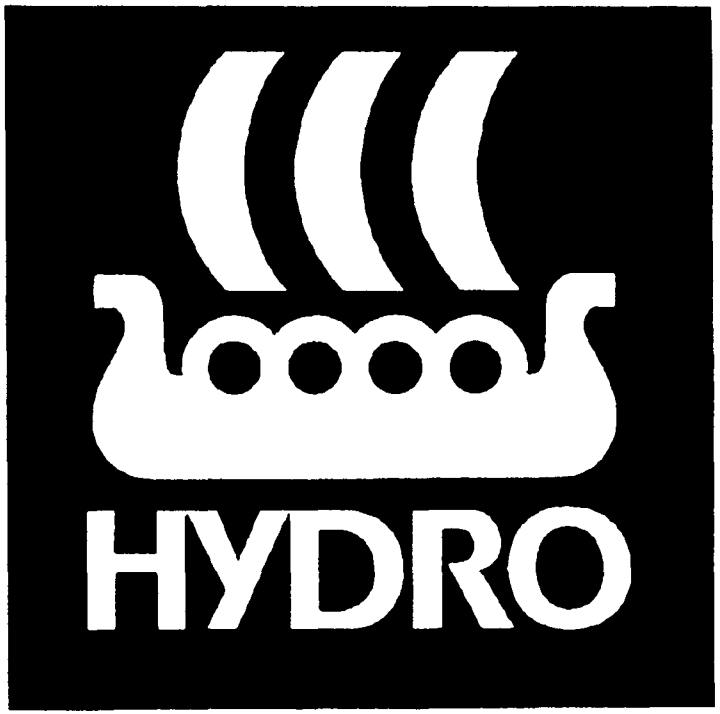
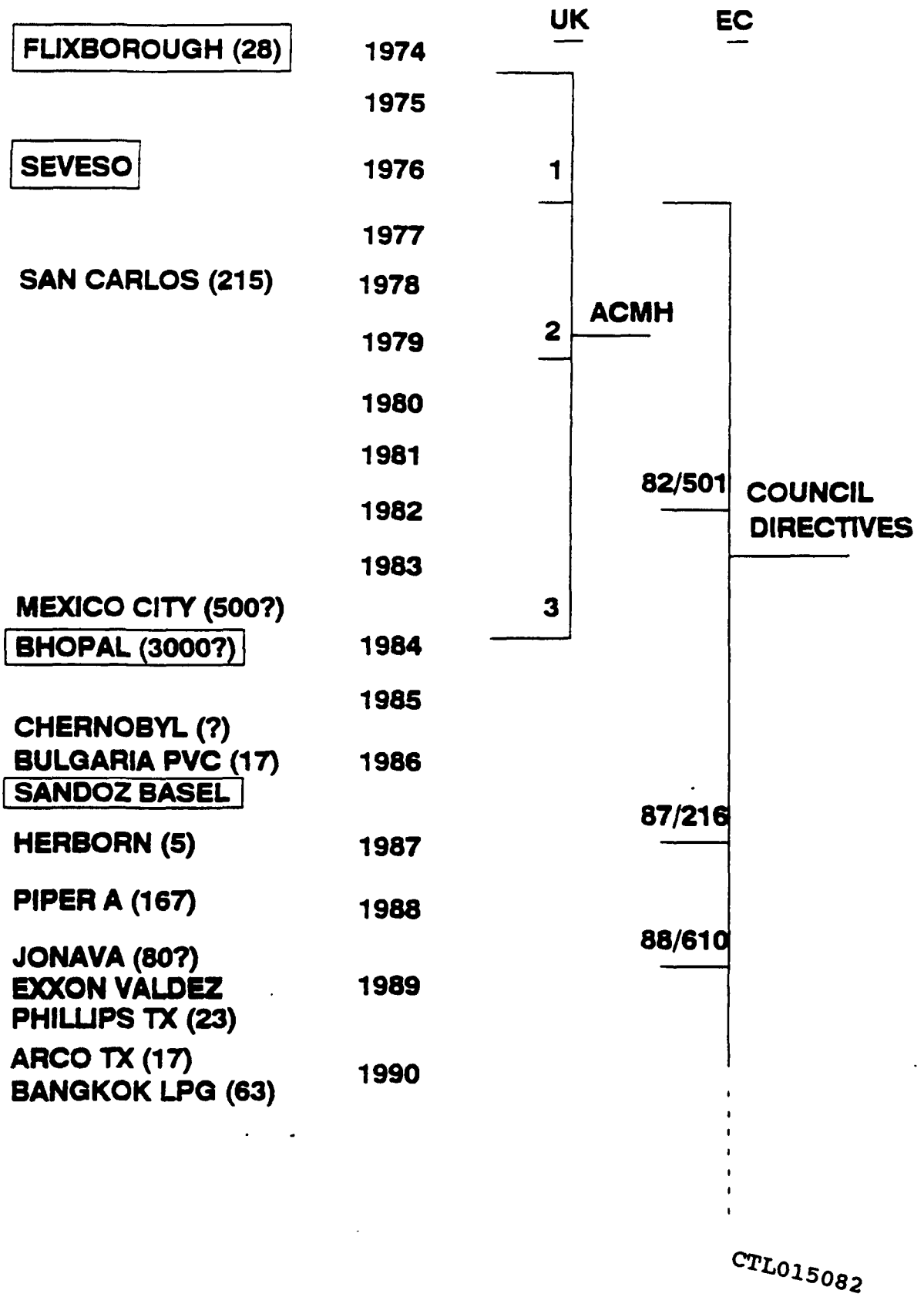
PRESENTATION TO VCSA OCTOBER 1993



CTL015081

DEVELOPMENT OF MAJOR HAZARDS LEGISLATION



CTL015082

Official Journal of the European Communities

COUNCIL DIRECTIVE

of 24 June 1982

on the major-accident hazards of certain industrial activities

(82/501/EEC)

STATUTORY INSTRUMENTS

1984 No. 1902

HEALTH AND SAFETY

The Control of Industrial Major Accident Hazards Regulations 1984

STATUTE BOOK OF THE SWEDISH NATIONAL BOARD OF OCCUPATIONAL SAFETY AND HEALTH

Ordinance (AFS 1989:6) concerning

LARGE-SCALE HANDLING OF CHEMICALS

PRESENTATION TO VCSA - OCTOBER 1993

HYDRO POLYMERS LIMITED
SEVESO DIRECTIVE

Article 3

. . . the manufacturer is obliged to take *all the measures necessary* to prevent major accidents and to limit their consequences for man and the environment.

CTL015084

HYDRO

PRESENTATION TO VCSA - OCTOBER 1993

HYDRO POLYMERS LIMITED
SEVESO DIRECTIVE

Article 4

... all manufacturers are required to *prove* to the competent authority *at any time* ... that they have identified existing major accident hazards, adopted the appropriate safety measures, and provided the persons working on the site with information, training and equipment in order to *ensure* their safety.

CTL015085

HYDRO

PRESENTATION TO VCSA - OCTOBER 1993

HYDRO POLYMERS LIMITED
SEVESO DIRECTIVE
TOP-TIER SITES

Article 5

SAFETY CASE **containing -**

(a) information on dangerous substances

(b) information on
- **installations and processes**
- **meteorological conditions**
- **people on site and exposed**
- **management systems**
- **hazard sources**
- **potential accident causes**
- **control systems and preventive measures**

(c) information on

- **onsite emergency equipment, response and plans**
- **the name of the person responsible for safety**

CTL015086

HYDRO

HYDRO POLYMERS

SAFETY CASE

as required by the

CONTROL OF INDUSTRIAL MAJOR ACCIDENT HAZARDS

REGULATIONS 1984

REVIEW ISSUE : JULY 1992

HYDRO POLYMERS LIMITED - SAFETY CASE

CONTENTS

SECTION

PRESENTATION TO VCSA - OCTOBER 1993

HYDRO POLYMERS LIMITED
SEVESO DIRECTIVE

Article 7

Offsite Emergency Plan

Article 8

Information to the Public

CTL015090

HYDRO

PRESENTATION TO VCSA - OCTOBER 1993

NORSK HYDRO CORPORATE PROCEDURES

TITLE : PROCESS SAFETY

OBJECTIVE : All hazards which may give rise to process related accidents shall be identified, understood and controlled.

APPLICATION : All operations which involve the manufacture, processing, storing or internal transportation of materials representing a risk to life, environment and property.

CTL015091

HYDRO

PRESENTATION TO VCSA OCTOBER 1993

HYDRO POLYMERS LIMITED
PROCESS SAFETY MANAGEMENT SYSTEM

- Process safety information
- Process safety studies [HRA]
  - hazard ranking and assessment
  - risk acceptance criteria
- Operating Procedures [CTS-11]
- Safe work practices [CTS-04]
- Modifications to process variables and equipment [CTS-01]
- Quality control and maintenance of equipment [CTS-03]
- Competence and training [CTS-12]
- Investigation & reporting of incidents & accidents [CTS-02]
- Emergency planning and response [CTS-10]
- Pre-startup safety reviews
- Inspections and auditing

CTL015092

PRESENTATION TO VCSA - OCTOBER 1993

HYDRO POLYMERS LIMITED

PROCESS SAFETY AUDITS

1. **Systems Audit**

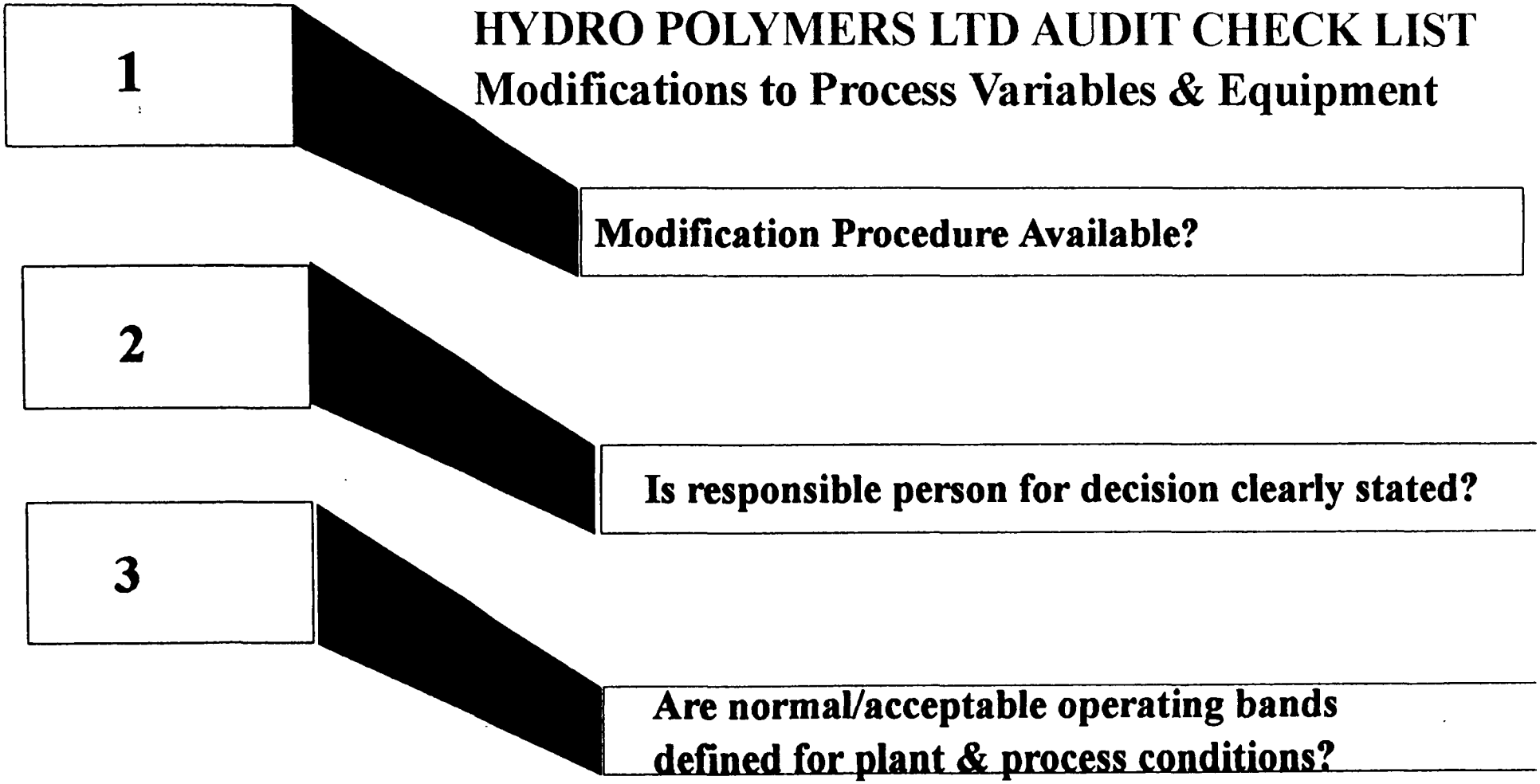
2. **Compliance Audit**

Detailed check lists for carrying out the Audit.

CTL015093

HYDRO

PRESENTATION TO VCSA - OCTOBER 1993



CTL015094

HYDRO

PRESENTATION TO VCSA - OCTOBER 1993

HYDRO POLYMERS LTD AUDIT CHECK LIST
Modifications to Process Variables & Equipment

4	Are upper and lower safe limits defined for plant & process conditions?
5	Who authorises deviation/experimentation outside normal process condition range?

CTL015095

HYDRO

PRESENTATION TO VCSA - OCTOBER 1993

6

HYDRO POLYMERS LTD AUDIT CHECK LIST
Modifications to Process Variables & Equipment

Are there safety reviews prior to changes, e.g. covering
- **new materials?**
- **corrosion effects?**
- **equipment design limitations?**

CTL015096

HYDRO

PRESENTATION TO VCSA - OCTOBER 1993

HYDRO POLYMERS LTD AUDIT CHECK LIST
Modifications to Process Variables & Equipment

7	Are special startup & operating instructions provided?
8	Are there required Hazop-analyses or similar?
9	Are all changes traceable and documented?

CTL015097

HYDRO

PRESENTATION TO VCSA - OCTOBER 1993

HYDRO POLYMERS LTD AUDIT CHECK LIST
Modifications to Process Variables & Equipment

10	Does change of trip setting require use of modification procedure?
11	Do changes require change of P&ID and other documentation?

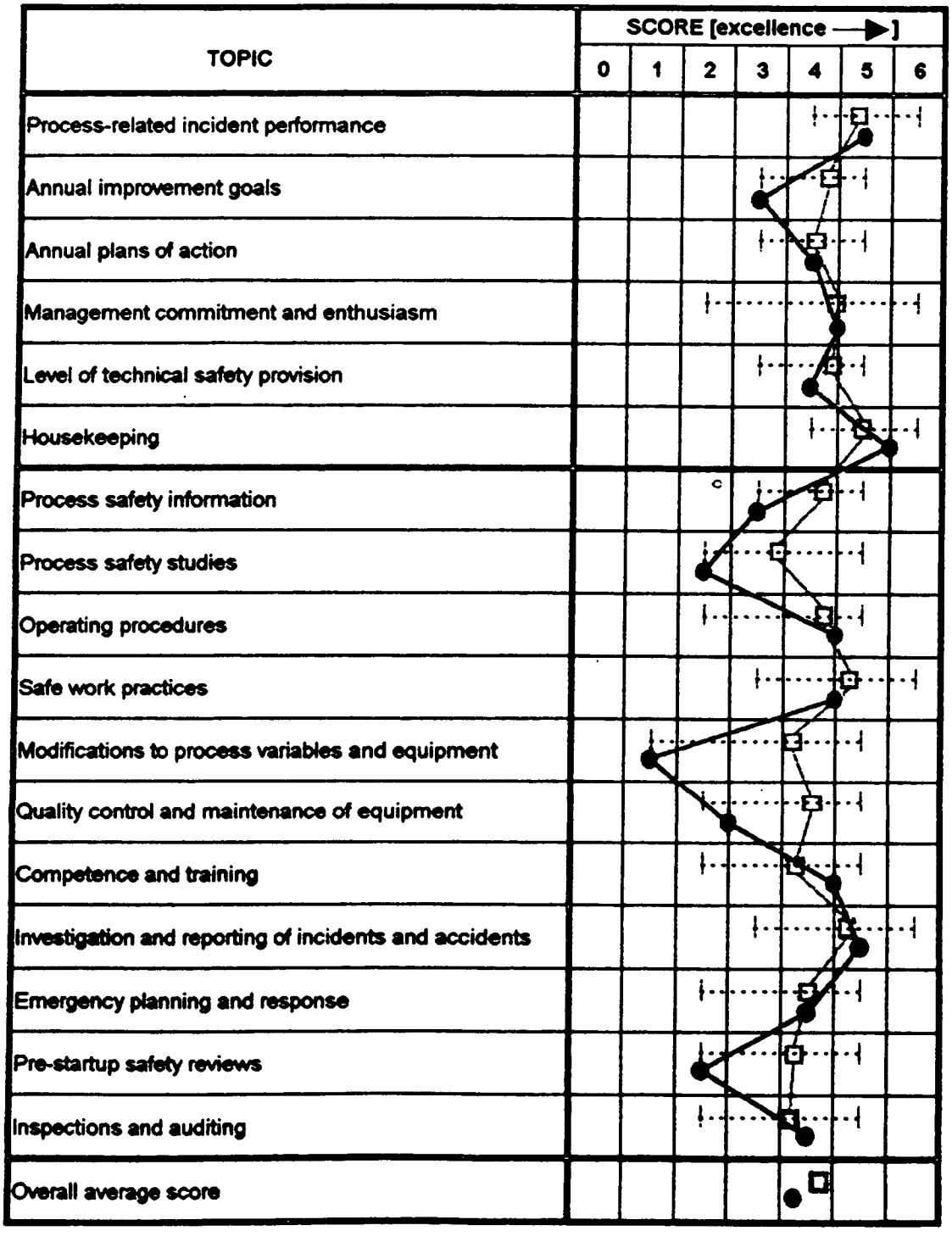
CTL015098

HYDRO

PROCESS SAFETY PROFILE

key: ● Audit Team Scores

⊡ SPC Score Range & Mean



Mean Scores: 3.76 4.23

CTL015099