



## Construction Engineering Consultants

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Nuclear Construction, Inspection, and  
Testing

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“Construction Engineering Consultants, Inc. Is an independent inspection-testing agency with expertise in the inspection and testing of various construction materials, and the development and execution of quality assurance for the construction industry.”

### History:

Joseph F. Artuso is the founder and CEO of Construction Engineering Consultants, Inc. He also performs consultations and the investigations and correction of quality problem dealing with structural building materials. He also directs the development of quality control procedures for commercial and nuclear construction.

One of the most experienced and respected men in his field, Joe Artuso has over 40 years of experience in the management and supervision of construction quality control testing and inspection. He is a graduate of Carnegie Mellon University in Civil engineering and has been a contributing editor of *Concrete*

*Construction Handbook* published by McGraw-Hill.

Since its inception in 1976, Construction Engineering Consultants has become a leader in quality assurance and quality control testing. The main reason for this is simple: the company is committed to involving senior managers extensively in every project. Frequent site visits by senior managers is standard procedure. This kind of personal attention sets CEC apart, and assures problems and delays are kept to a minimum. The result is high-quality, on-time performance even on the largest power plant or heavy construction projects.

## **Nuclear Construction Quality Control Experience:**

CEC has considerable experience in performing Quality Control inspections and tests of on Nuclear Power Plant construction for verification of conformance to the requirements of Appendix B to 10 CFR 50.

CEC personnel staffed over 70 Quality Control positions during construction of the Beaver Valley Unit 2 Nuclear Power Plant including Director and Assistant Director of Quality Control. We were responsible for directing the development of Quality Control Procedures and establishing a site testing laboratory which was regularly inspected for conformance by the Cement-Concrete Reference Laboratory and AASHTO Materials Reference Laboratory, both affiliated with NIST.

CEC has performed Quality Control inspection and testing for the construction of the Nuclear Waste Cask Storage Slab at the Perry Nuclear Power Plant. CEC developed Quality Control Procedures for this activity in accordance with nuclear standards and the construction specifications.

## **Professional Organization & National Committee Involvement:**

CEC, Inc. is committed to maintaining the highest level of professional and ethical standards, which has included contribution to development of national standards and membership in national committees including:

“CEC has performed various quality control functions and consultations for many existing Nuclear Power Plant Facilities”

- A.S.C.E. - Task committee on Inspection Agencies
- A.C.I. - Committees 214, 304 and 311
- A.N.S.I. - A.N.S.I. N-45-3.5 Structural Steel
- A.S.M.E. Code for Concrete Reactor Vessels and Containment - Committee 359 (ASME Section II, Div. 2) Construction Materials and Exam. ACI-ASME Committee on Concrete Pressure Components for Nuclear Service
- NQA-1 Nuclear Quality Assurance Committee - Quality Assurance Requirement for Nuclear Facility Applications
- NQA Part 2.50 - QA Requirements for Installations, Inspection & Testing of Structural



## Nuclear Construction:

### Development of Nuclear Construction Standards:

CEC personnel assisted in the original development of NQA-1 Part II, Subpart 2.5 “Quality Assurance Requirements for Installation, Inspection and Testing of Concrete, Structural Steel, Soils, and Foundations for Nuclear Power Plants”. CEC personnel also assisted in the 2010 revision of this standard.

CEC personnel participated in the development of the Joint ASME/ACI Committee 359 Code for the Containment Structure and principal owner, Joseph F. Artuso is currently the chairman of the Working Group; Materials, Fabrication and Examination.

CEC personnel also contributed to the “Companion Guide to the ASME Boiler & Pressure Vessel Code” edited by K. Rao.

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“CEC has performed various quality control functions and consultations on the construction of the following Nuclear Power Plants.”



- Beaver Valley Unit 2
- Clinton
- Crystal River Unit 3



- Davis-Beese
- Ginna
- Grand Gulf Unit 1



- Indiana pointe Unit 2
- Millstone Unit 2
- Oyster Creek



- Saint Lucie Unit 1
- Saint Lucie Unit 2
- Seabrook Unit 1



- South Texas Unit 1
- South Texas Unit 2
- Summer
- Three Mile Island Unit 1



CEC, Inc. is regularly inspected by the Cement and Concrete Reference Laboratory (CCRL) and the AASHTO Materials Reference Laboratory (AMRL both of which are located at the NIST in Washington D.C.

CEC, Inc. is additionally accredited by AASHTO in the areas of Concrete, Concrete Aggregates and Soils (see attached certificate). Please note that AASHTO no longer provides certificates with expiration dates. Confirmation of current accreditation status is made by viewing information on the web page indicated on the attached certificate (see web page example).

CEC, Inc. qualified to conduct testing for the U.S. Army Corps of Engineers (see attachments).

CEC, Inc. conducts in-house training and certification of personnel in accordance with ANSI N45.2.6 and SNT-TCI-A. Concrete testing personnel are qualified by written and performance examination equivalent to ACI Grade I as required by ACI-301 and other national standards.

CEC, Inc. meets the requirements of the following:

ASTM C 1077

ASTM D 3740

ASTM E 329

ASTM E 543

ASTM A 880 (NOTE: This procedure was withdrawn by ASTM in 1995)

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