



About the Author

Visit www.nakco.com for a pictorial resume of author's projects

Jerry Nicholson, M.A. owner of Nushagak Consultants and an Alaska Native (Aleut) born (1944) and raised in the commercial fishing capital of the world Bristol Bay, started his career as a heating technician in the late 1950's working on his mother's antiquated oil pot burner stove which was used for cooking and heating in a 1930's vintage log home. In the Bristol Bay Region he became an expert in oil fired burners and primary controls. During this period, a master instructed him in the design and installation of oil fired hydronic boilers and warm air furnaces.

MR. NICHOLSON'S CREDENTIALS

CERTIFIED BY THE STATE OF ALASKA AS A
COMMERCIAL MECHANICAL ADMINISTRATOR

PROFICIENCIES:

BUILDING HEAT LOSS TO CALCULATE HEATING
LOAD REQUIREMENTS FOR HYDRONIC BOILERS
AND HEAT EMISSION UNITS;

OIL FIRED BURNERS AND OIL PUMPS; DESIGN
SINGLE AND TWO PIPE OIL SYSTEMS;

DESIGN MONOFLOW, DIRECT RETURN, REVERSE
RETURN, AND LOOP HYDRONIC CIRCUITS;

BOILER PRIMARY AND SECONDARY
CONTROLS;

DESIGN HEATING CIRCULATOR PUMP GPM FLOW
REQUIREMENTS;

DESIGN HEATING PIPE SIZING AND PRESSURE
DROPS, RELATIVE WATER VELOCITIES, PUMPING
HEADS AND STATIC PRESSURE, HEATING SYSTEM
CURVES, AND CONTROL VALVE CV RATINGS;

COMPUTERIZED DRAWINGS; AUTOCAD
MECHANICAL DRAFTING AND LAYOUT; (SEE ON
CD OR WEBSITE)

DESIGN AUTOMATIC TEMPERATURE CONTROLS
AND ELECTRICAL WIRING FOR BOILERS



EXAMPLE PROJECT
BETHEL, ALASKA 2005

Moving to the Yukon/Kuskokwin region in the 1970's Mr. Nicholson perfected his heating career by home correspondence and became Bethel, Alaska's Head Honcho oil fired burner expert. In addition, he designed and installed numerous residential and commercial hydronic heating systems that still exist in excellent working condition in Bethel today.

Moving to Anchorage in the early 1980's to centralize his business Mr. Nicholson continued his heating education by attending Anchorage Community College (made Dean's List) and partnering with major HVAC corporations (Johnson Controls and Control Systems International) in the design and installation of heating computerized Direct Digital Controls (DDC). He is also very appreciative to many colleagues (Alaska Mechanical Engineers and Master Heating Mechanics) who have contributed to his professionalism in the heating industry.

Mr. Nicholson's major accomplishments in the heating contracting industry have been in both the private and government sector. Highlights of his commercial achievements has been a 1.5 million dollar project in Juneau, Alaska; a \$800,000 project renovating airline terminals throughout Alaska, and 1.3 million dollars worth of projects renovating Alaska Native service hospitals in rural Alaska and Anchorage. In the residential market, Mr. Nicholson has performed hundreds of thousands of dollars worth of heating work for Alaska Indian Housing Authorities.

Mr. Nicholson also has unique abilities in damage control in assessment of heating systems and has saved client's money and made innumerable people happy. Comments by individuals: 1993, Neil Bergt, owner Markair Inc, "I want to shake your hand Jerry for making my employee's warm in Prudhoe Bay". — 2005, Joel Bowles manager in Bethel, Alaska for the Pacifica Guest House, "For six years we have been freezing in this hotel, and spent thousands trying to correct the problem and nobody could fix it until you came along, Thank you". — 1990, Wayne Hill store owner, Chevak, Alaska, "The Kashunamuit School District suffered until you came along"; — 2006, Peter Giannini, Chief Operating Officer, Tatitlek Corporation, Anchorage, "You never cease to amaze me in your capacities and abilities".

Any questions or need technical assistance feel free to e-mail Jerry at Nushagak Consultants: jerrynicholson@alaska.net



August 25, 1989

To: Whom it May Concern

From: Gerald A. Swanson *Gerald A. Swanson*
Project Manager

Subject: Nushagak Mechanical Contractors, Inc.

Nushagak Mechanical Contractors, Inc. was one of the subcontractors to Kanag'Iq Construction Co., Inc. on the recently completed contract for repairs and improvements to the third floor north wing at the Alaska Native Medical Center in Anchorage. The work involved converting a general patient care area into an intensive care unit for pediatrics patients. As the mechanical subcontractor, Nushagak Mechanical Contractors, Inc., were responsible for installing all the plumbing and sheetmetal work on the project. Specific items of work included installing a new HVAC system to serve the remodeled area, rerouting of plumbing lines and ductwork from the second floor to the fourth floor to accommodate the remodeled space on third floor, upgrading of the medical vacuum system and installation of medical gas systems. Their work was complicated by inaccurate "as-built" drawings and space limitations in the remodeled space for utility lines and ductwork. Nushagak Mechanical Contractors, Inc. were very thorough in the development of their plans for the rerouting of the existing utilities and the installation of new utilities to insure there were no space conflicts. I was impressed with the cooperation received from them during the course of this rather difficult project and their professional approach to solving the many problems encountered. The shop drawings and materials submittals received from them were as complete and well presented as I have ever seen on a project of this sort.

I would highly recommend Nushagak Mechanical Contractors, Inc. be used as a mechanical contractor on any future projects involving commercial type work based on the past experience I have had with them on this project.





DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Office of Engineering Services

Region X
Federal Bldg. - Module G
222 W. 8th Ave., #65
Anchorage, AK 99513-7561

August 23, 1989

Mr. Gerald L. Nicholson
Nushagak Mechanical Contractors, Inc.
225 E. Fireweed Lane
Anchorage, AK 99503

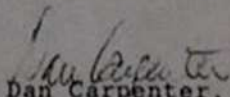
Dear Gerald:

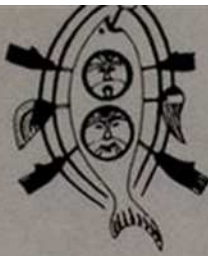
I am writing to express my sincere appreciation for your accomplishments of the mechanical portions of three maintenance and repair projects recently completed in Barrow, Alaska, at the Indian Health Service hospital and staff quarters.

I have been impressed by the professional approach you have taken in completing the many difficult and varied tasks associated with the repair and replacement of heat generation equipment, fuel oil/natural gas distribution systems, and domestic water and sewer piping/equipment on these projects. In addition to performing the tasks required by contract, you have, on numerous instances, responded in a timely manner and at a reasonable cost to changes that came about due to design defects or site conditions that are so often encountered in modernization and repair projects. Your understanding of the underlying engineering considerations associated with the design of these modernization projects has, at times, led to some suggested improvements that were incorporated in the projects at the benefit of the government.

Your willingness to coordinate your schedule closely with the hospital staff in order to accommodate the needs of patients and staff was much appreciated. I look forward to working closely with you again on any future projects where you are the successful bidder.

Sincerely,


Dan Carpenter, P.E.
PHS/OES Project Officer



KASHUNAMIUT SCHOOL DISTRICT

985 KSD Way
Chevak, Alaska 99563
(907) 858-7713 FAX (907) 858-7328

February 26, 1996

Re: Gerald Nicholson
National Matrix, Inc.



To Whom It May Concern:

For the past five and one half years, Kashunamiut School District has utilized the services of Gerald Nicholson in a variety of ways as regards the mechanical operations and maintenance of the District's facilities. Given the circumstances under which we must operate facilities safely and cost-effectively, Mr. Nicholson's assistance has been invaluable. Our school, utility building, housing, office, shop, above-ground utilidors, fuel farm, water well, and other facilities are of BIA design and construction. The oldest building was constructed in 1953, and the newest in 1973. Most of our facilities were inferior when built, and, given their age and the harsh environment, are a challenge to operate and maintain. This situation is exacerbated by the distance from supply sources and the fact that the local maintenance personnel have had little or no formal training in facility maintenance and operation.

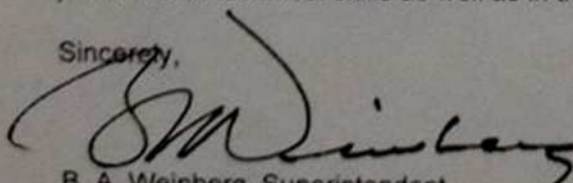
Gerald Nicholson has guided us in upgrading our old systems, in retrofitting computerized controls, and in repairing and replacing components that had badly deteriorated due to age and inadequate maintenance. Besides being cost-effective, Mr. Nicholson's services reflect the highest standards of workmanship.

Probably the single most beneficial service that Gerald Nicholson has performed is training our local maintenance personnel. As an Alaska Native himself, he relates very well to our Native staff. A major component of each of the jobs Mr. Nicholson has done for Kashunamiut School District has been to provide on-the-job training for our local mechanics. Not only does he ensure that they learn technical skills, but he instills attitudes that will serve these young men well in all aspects of life and that will greatly improve their service to the District. Mr. Nicholson has trained our personnel to think about their jobs conceptually as well as in detail, to anticipate problems and plan ahead, to see the importance of preventative maintenance, to be reliable, to be tidy, and, most importantly, to take genuine pride in their work.

As follow-up to the one-on-one training, Mr. Nicholson has developed a preventative/routine mechanical maintenance manual, complete with checklists, that is very comprehensive, yet easy to understand and use. Because he has ingrained in our staff the importance of preventative and routine maintenance, and because he has developed a manual tailored to their situation, they follow the routines faithfully, greatly reducing the number of emergencies and non-scheduled maintenance.

Based on my extensive experience with Gerald Nicholson's work in Kashunamiut School District, I am pleased to recommend him without reservation as a mechanical contractor who performs high quality, cost-effective work. I can especially recommend him as a person who is particularly adept at training maintenance personnel in technical skills as well as in the attitudes necessary to be effective employees.

Sincerely,



B. A. Weinberg, Superintendent
KASHUNAMIUT SCHOOL DISTRICT