JAK/BAL

JAK 12.07.88

Nuna-Teks Danmarksafdeling

BGA-referat nr. 4/1988

København den 5. juli 1988

Læs kun, hvad du mener at have brug for i dag - og indsæt derefter det samlede materiale i et ringbind, der kan fungere som opslagsbog. Denne vil een gang om året blive forsynet med emneoversigt.

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1. Tidsregistreringen - NTB's taxameter

NTB's økonomi er fra og med indeværende år på helt afgørende måde bestemt af medarbejdernes korrekte tidsregistrering. Fra tidligere at have afregnet NTB's byggeadministrative funktioner efter ydede præstationer afregnes der nu efter anvendt tid.

Det er således helt nødvendigt for NTB's trivsel, at der tidsregistreres korrekt, - at et tilstrækkeligt antal teknikertimer kan regningsudskrives - og at denne regningsudskrivning også finder sted.

På byggeledermødet i jan./feb. 1988 blev sammenhængen mellem NTB's økonomi og tidsregistrering nøje behandlet. Drøftelserne på mødet var måske nok så teoriserende, men konkluderende stod det dog helt klart, at NTB's budget er lagt an på, at 75% af teknikernes nettotimer forudsættes regningsudskrevet.

Dette er et meget enkelt og et meget operativt styringsredskab. Hverken EDB eller specielt uddannet personale er nødvendigt for at kontrollere og at følge op, at denne målsætning kan efterleves. Det er således såvel muligt, men også nødvendigt, at ledere på ethvert niveau løbende kontrollerer og bedømmer den enkelte arbejdsgruppes tidsregistrering.

Usikkerheden i budgetteringen for 1988 er betydelig. Der er endnu ikke fuldt overblik over, hvilke opgavemængder NTB skal administrere, eller i hvilken takt de enkelte opgaver skal gennemføres. Det er imidlertid vort bedste skøn i dag, at i gennemsnit 75% af de ansatte teknikeres nettotimer svarer til den arbejdsmængde, der kan overskues i NTB's byggeadministration, styrelsesfunktioner og særskilt betalt rådgivning.

Dette skøn kan på grund af den nævnte store usikkerhed eventuelt være misvisende. Viser tidsregistreringen, at NTB ikke når de forudsatte 75% debiterbarhed, kan det være udtryk for, at NTB har for mange teknikere ansat eller i hvert fald for, at NTB har for

mange teknikere i forhold til de økonomiske forudsætninger, NTB virker under. Under alle omstændigheder må det give anledning til ganske alvorlige overvejelser om størrelsen og sammmensætningen af NTB's teknikerstab.

På den anden side. Viser tidsregistreringen, at behovet for teknikertimer er væsentligt over 75%, må NTB søge at få en fornuftig balance ved i første omgang at gøre brug af rådgivende arkitekt- og ingeniørfirmaer til at løse opgaver, NTB egentlig havde regnet med at klare selv. På længere sigt skal NTB naturligvis vedvarende søge at tilpasse medarbejderstaben til det aktuelle behov.

Det er fantastisk vigtigt, at alle NTB's medarbejdere erkender ovennævnte sammenhæng og tidsregistrerer ærligt og rimeligt - såvel af hensyn til vore kunder som af hensyn til NTB's trivsel.

På grund af diverse problemer ved overgang til nye principper for tidsregistrering i Nuna-Tek i det hele taget har vi desværre endnu ikke et pålideligt billede af resultatet af registreringen i første halvdel af 1988. Noget tyder på, at vi i denne periode ligger 5-10% lavere end de stipulerede 75%.

GLP

2. Byggeledermøde

Årets byggeledermøde fandt sted fra 31. jan. til 6. feb. og havde - ikke mindst på grund af GTO's netop afsluttede, første år under Hjemmestyrets urolige vinger - stor betydning. Der blev her lejlighed til at udveksle erfaringer om Byggeværsenets tilpasning til de nye forudsætninger.

Referat af mødet vedlægges.

Red.

3. Disponering af anlægsudgifter

For tredie gang skal BGA-ref. omtale Hjemmestyrets retningslinier for disponering af anlægsudgifter, optaget på landstingsbevillingslove. De to tidligere omtaler er at finde i BGA-ref.'erne nr. 2/1988 og nr. 3/1988.

Denne gang skal nedenstående gengives DBTM's retningslinier for formulering af en ansøgning om endelig godkendelse. Disse retningslinier er udsendt ca. 1. juni 1988:

I det følgende et anvendeligt skelet til brug ved ansøgning om endelig godkendelse af en opgave i landsstyret.

Som bekendt skal der på "gamle" opgaver, d.v.s. hvor projektering er startet før 5.2.88, søges, inden der indgås håndværkerkontrakter og på "nye" opgaver, når programoplægget foreligger. Det er op til den enkelte disponent at administrere så forsigtigt og ansvarligt, at der ikke bruges flere midler end nødvendigt - men nok til denne opklaringsfase.

Nedenstående emner - angivet med store bogstaver - skal berøres i alle ansøgninger, teksten til højre herfor er kun til inspiration.

Af hensyn til sagsbehandlingen og især politikerne bedes I overveje at anvende samme "skema" for samtlige ansøgninger.

Ansøgninger til prioriteringsudvalget - cirkulæreskrivelse af 5.2.88 med et vedr. af 25.3.88

NUNA TEK

ANSØGNING OM IGANGSÆTNINGSTILLADELSE

OPGAVE:	Opgavens benævnelse, normalt teksten fra finansloven.
BY/BYGD:	Navn - gerne placering eks. ved havnen i eksisterende bebyggelse, i nyt boligområde under modning o.a.
FORMÅL:	Hvilke opgaver løses, hvordan er beslutningen truffet, har der været overvejet alternativer. Er det en følgeinvestering, sammenhæng med øvrige opgaver.
PROJEKTBESKRIVELSE:	Standardbyggeri, erstatningsbyggeri, byggeprogram, programoplæg. Projektstadet. Hovedtallene m/m2/m3. Antal boliger o.l.
ANLÆGSØKONOMI:	Bevilling på finanslov. Overslag i prisniveau 07/88. Årsfordeling. Ansøgerens vurdering af prisen.
AFLEDTE DRIFTSVIRKNINGER:	Forøget omsætning, dækningsbidrag, forrentningsevne, personalebehov. Disse oplysninger skal for erhvervsmæssige tiltag normalt dokumenteres med en beregning eller på anden måde.
VIRKNINGER VED UDSKYDELSE ELLER OPGIVELSE AF PROJEKTET:	Herunder forgæves investeringer, markedsbetingede forhold, konkurrence mv.

EVT. FØLGE-INVESTERIN-GER: Direkte nødvendige følgeinvesteringer som off. byggemodning, kajanlæg, udvidelse af fragtflåde m.m.

DATO UNDERSKRIFT

Red.

4. BGV's priser på VVS-området

Der er den 29. juni 1988 udsendt følgende meddelelse fra BGV om øjeblikkelig nedsættelse af VVS-områdets lagerpriser:

I forbindelse med effektiviseringen af byggetjenestens driftsvirksomheder er det bl.a. lykkedes BGV at opnå bedre indkøbsbetingelser for VVS-artikler. Salgspriserne (kardexpriserne) ved Nuna-Tek's VVS-lagre excl. THU og SCO kan derfor nedsættes ca. 20%, idet der herved forventes et stigende salg fra lagrene.

Nye VVS-priskataloger incl. følgeskrivelse udsendes d.d. til byggetjenestens VVS-lagre og er gældende straks ved modtagelsen.

Prisnedsættelsen gælder kun VVS-områdets lagerpriser. Ved "konkrete samlede leverancer", dvs. leverancer direkte til konkrete opgaver, vil priserne blive fastholdt på de hidtidige lavere procenttillæg på henholdsvis 8 og 10% af kostprisen.

Red.

5. Udstationering af arkitekt

Byggeleder Rasmus Prehn Rasmussen, Paamiut, har den 11. apr. 1988 sendt Danmarksafdelingen følgende lærerige betragtninger:

Tiden nærmer sig, hvor arkitekt Kay Vaarning forlader os og rejser tilbage for at genindtage sin stol på Hauser Plads. Kay Vaarning har tilbragt knapt en måned i Paamiut, hvor han primært har taget sig af to helt konkrete opgaver - nemlig skitseprojekteringen i forbindelse med henholdsvis udvidelse af Søfarts- og fiskerifagskolen samt ændringer af KNI's posthus, der har til huse i en af de gamle bevaringsværdige bygninger ved havnen. Sidste opgave kunne løses ved en rationalisering af bygningens indretningsforhold, og et uheldigt, senere tilbygget vindfang kunne sløjfes.

Herudover har Kay Vaarning bidraget med den inspiration, der følger i kølvandet af en "såkaldt københavner".

De to førstnævnte opgaver er løst optimalt udfra nogle helt væsentlige forudsætninger, nemlig tæt kontakt til bygherren og fysisk nærhed af opgaven, hvilket har resulteret i:

- realistisk bedømmelse af muligheder
- tilbundsgående og tilbagevendende drøftelser med bygherren
- interesserede og tilfredse bygherrer
- projektmæssig kvalitet.

Det er herefter åbenbart, at de muligheder, der ligger i at rekvirere bistand til sådanne opgaver, bør udnyttes. Specielt på skitse/programstadet vil det være en gevinst og altså i sidste ende en gevinst for bygherren.

De to involverede bygherrer her i Frederikshåb har således i begge tilfælde ytret sig i den retning, at de var positivt overraskede over, at GTO i den foreliggende situation kunne yde en så hurtig, effektiv og kvalificeret bistand.

Det er vor opfattelse, at GTO med fordel vil kunne anvende den her beskrevne model i en lang række tilfælde, hvor man tidligere anvendte den praksis, at alt programmeringsarbejde foregik i København.

Lokalt vil vi således i samarbejde med jer kunne bidrage til en forbedring af GTO's ansigt ud til det lokale samfund, hvilket i praksis vil udmønte sig i en voksende ordrebog.

Red.

6. Water and waste management in cold climate

Som tidligere omtalt i BGA-ref. planlægger WHO's regionalkontor for Europa at udsende en vejledning med titlen: Water and waste management in cold climate. I udarbejdelsen af denne finder man deltagere fra Alaska, Canada, USSR, Sverige, Norge, Finland, Kina og Danmark/Grønland.

GTO var vært ved et redaktionsmøde i Ilulissat den 3. til 8. okt. 1987, og man kom her så vidt med arbejdet, at vejledningen nu forventes udsendt i efteråret 1988.

I tilknytning til mødet i Ilulissat udsendtes vedlagte Summary Report af 25. nov. 1987.

Red.

Bilag: Referat af byggeledermøde
Summary Report af 25. nov. 1987

WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR EUROPE

ORGANISATION MONDIALE DE LA SANTÉ
BUREAU RÉGIONAL DE L'EUROPE

WELTGESUNDHEITSORGANISATION
REGIONALBÜRO FÜR EUROPA

ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ
ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

Consultation on Guidelines on Water Supply and Sanitation, and on Solid Wastes Management under Cold Climatic Conditions

Jakobshavn (Ilulissat), Greenland, 3-8 October 1987

EUR/ICP/CWS 027(S)
0640v
25 November 1987

ORIGINAL: ENGLISH

SUMMARY REPORT

Introduction

The indigenous populations of the Arctic and sub-Arctic regions have experienced major socioeconomic changes during the last few decades. In addition, many workers and their families have moved to these regions because of various types of development, including the exploitation of oil and minerals.

As a result, human settlements in these regions have been substantially modified. Many small and scattered hamlets have been progressively replaced by urbanized communities of varying sizes, in which basic needs, besides housing, include the provision of safe drinking-water and the hygienic disposal of liquid and solid waste.

Bearing in mind the importance of these changes, the WHO Regional Office for Europe convened in Copenhagen in 1981 a scientific working group to study the environmental health problems of those regions. Among other things, the group recommended that guidelines for water and sanitation should be made available for people living in cold climates.

Once completed, the first draft was sent for comments and suggestions to specialists from most of the countries concerned with Arctic and sub-Arctic development. A section was subsequently added covering solid waste management, and the original draft was substantially modified.

A group of 15 experts (from Canada, the People's Republic of China, Denmark, Finland, Norway, Sweden and the United States) with experience in Arctic and sub-Arctic conditions met in October 1987 to discuss and agree on a final version of the guidelines. This Consultation was made possible by generous assistance from the Greenland Technical Organization, co-sponsor with WHO.

It was agreed that the title of the document should be "Water and waste management in cold climates". The participants at the Consultation developed a series of conclusions and recommendations on topics that included research needs. The participants agreed that consideration should be given to the need for revising the guidelines in five years in view of the rapid developments taking place.

Conclusions and recommendations

General statements

Cold regions are characterized by extended periods of low temperatures through which equipment and installations must continue to function.

Owing to the harsh climate and, in most cases, the long distances between towns and settlements, critical logistic problems can arise in the construction, operation and maintenance of water and waste installations.

Higher capital costs can normally be justified to assure lower operation and maintenance costs and higher reliability.

Educating the public on all aspects of water and waste management is of great importance in helping people to protect their health.

Planning of sanitation facilities

The competent planning of new communities or extensions to existing communities can greatly reduce the difficulties and costs of constructing, operating and maintaining water and waste facilities.

In planning for sanitation facilities in areas with cold climates, consideration must be given to protecting the source of water from contamination by liquid and solid waste disposal.

Small communities in the Arctic and sub-Arctic usually cannot technically or economically support high-technology solutions to sanitation problems. Therefore, simple, low-maintenance systems using a minimum of energy must be used. When water and waste facilities are designed, consideration must be given to how the system will be protected from freezing and, if once frozen, how the system can be put back in service.

Planners, after consulting with the local community, must attempt to obtain a stable decision on the location of water and sanitation facilities before detailed design work commences.

Geotechnical aspects of cold regions

Thawing and freezing cycles are fundamental considerations in the design and maintenance of the foundations and other components of water and waste facilities.

Thorough geotechnical investigations, taking account of thermal conditions, must be performed before facilities are planned or designed.

Water requirements

Quantities of raw water are often limited, and the costs of producing potable water and treating wastewater are often high. Systematic water conservation is thus important. The waste and leakage of water should be reduced to a minimum. Data on the amount of water used should be collected and assessed, particularly when the extension of services is considered.

Water sources and their development

All levels of government should promote the collection of basic precipitation and hydrological data. Facts on water quality should be included.

Water sources must be regularly monitored and protected against any form of contamination.

Water treatment

Raw water should be heated to a minimum of 5 °C to lower its viscosity and thereby facilitate effective treatment.

Seasonal variations in water quality can create special treatment problems.

It is important that treated water should be aesthetically (as well as chemically and biologically) acceptable to the consumer.

Water storage

Climatic conditions and weather variations can significantly affect the reliability of sources, particularly when distant sources must be used. Water storage within the community should therefore be an integral part of nearly all systems, ensuring reserves for domestic and industrial use and fire-fighting during periods when the supply is interrupted.

Water may be treated before storage in small communities or, in larger communities, stored as raw water. In both cases, storage over a long period may cause deterioration in the quality of the water in the tank or reservoir. Appropriate measures might therefore have to be applied to safeguard the purity or wholesomeness of the water supplied to the consumer.

Water distribution

Piped systems for water distribution are recommended for all communities. Community-operated truck-haul systems may be an acceptable alternative for smaller communities and for areas with scattered housing in larger communities. Self-haul systems from watering points may be used in very small communities with old housing or lacking suitable roads.

It should be emphasized that each stage of a progressive development towards a piped system benefits the health of the community.

Wastewater collection

Larger communities, in which water is distributed by piped systems, also need piped systems for wastewater collection. Depending on the physical conditions, systems may use gravity, pressure or vacuum to convey the liquid. Gravity systems are preferred because of their simplicity and reliability.

For smaller communities or communities with large spaces between houses, community-operated haul systems may be acceptable. Self-haul systems should be discouraged for health reasons.

Rainwater should be excluded from wastewater systems.

Utilidors

Utilidors are usually very costly to construct and maintain, but they may be feasible under certain conditions, such as in mineral exploitation camps or military bases.

When utilidors must be constructed above the ground in a community, close liaison between municipal engineers and town planners is essential.

Wastewater treatment

Appropriate treatment should be provided, depending on the requirements of the receiving environment, and the simplest and most reliable processes possible should be used.

When biological treatment becomes necessary, treatment methods, in order of preference, might include:

- lagoons
- rotating biological contactors or other attached growth systems
- activated sludge systems.

Freezing is recommended as the most effective and economic process for sludge dewatering. The effectiveness of all these methods of treatment, however, depends on skilled and dedicated operation and maintenance.

Wastewater disposal

Where possible, ocean discharge is desirable, in which case screening and/or comminution may become necessary. The assimilative capacities of rivers and lakes in cold climates can be very low. The capacity of the receiving body of water should therefore be determined.

Surface and subsurface land disposal should not be adopted in areas where groundwater is used as a water source. In addition, subsurface land disposal is not recommended in permafrost areas.

Shared community facilities

The conditions in many communities are such that it is not practicable to construct and operate water supply and wastewater distribution systems to serve individual dwellings. Such communities may be provided with single

shared facilities within a multipurpose building, in which services including the supply of potable water, showers, washing and laundering would be available.

Solid waste disposal

Sanitary landfill is normally the most appropriate method of disposing of solid waste. The landfill site should be considered as an integral part of the physical planning of the community. Special consideration should be given to the availability of covering materials, to the location of the site in relation to the community, and to access to the site.

The effective management of disposal sites is just as important as the management of water and wastewater systems.

Garbage should be separated to facilitate the burning of wood and paper products and the salvage of metal and glass. Open burning must be carefully controlled, and only wood and paper products should be burned.

Campaigns should be mounted to encourage community tidiness and to collect litter and other randomly dumped material.

Returnable glass bottles and other containers should be used. Toxic waste should be collected and transported to specially designed installations for appropriate treatment and disposal. Prohibiting imports of particularly harmful materials to sensitive cold climate areas may be considered where appropriate.

Research

Research on the following topics with special reference to conditions in cold climates should be inaugurated or strengthened:

- the effectiveness of various methods for treatment of water with low turbidity and high organic content (especially humic acid);
- the treatment of water with high sediment loading, including the vortex process;
- the continuous treatment of water by freezing processes;
- anaerobic waste treatment at low temperatures;
- the freeze-drying of sludge;
- the effectiveness of small garbage incinerators;
- the composting of solid waste;
- the effects of mixing and recirculating water in ice-covered reservoirs and processes to reduce ice thickness in such reservoirs;
- the protection of water pipes from freezing through the use of microwaves;

- the effects of long distance air transport of pollutants on raw water quality; and

- aerobic and anaerobic microbiological processes in waste treatment and in the self-purification of receiving waters.