ATOMIC ENERGY COMMISSION
ATOMIC SAFETY AND LICENSING APPEAL PANEL
WASHINGTON, D.C. 20545

November 26, 1973

L. Manning Muntzing
Director of Regulation

QUALITY ASSURANCE DEFICIENCIES ENCOUNTERED AT MIDLAND FACILITY

The Appeal Panel recently received a copy of the November 13, 1973 Notification of an Incident or Occurrence issued by the Directorate of Regulatory Operations in connection with the Midland Plant, Units 1 and 2. This notification relates to a Region III inspection of the Midland facility which took place on November 6-8, 1973 and "identified serious deficiencies associated with Cadweld splicing of concrete reinforcing bars". It is stated that "[t]hese deficiencies involved inadequate procedures for installing Cadweld splices, for material control, and for documenting required quality parameters".

In addition, the notification reveals that the inspectors determined that "inspection techniques were inadequate and acceptance criteria used for quality requirements were being misapplied". We assume that this was intended to be a diplomatic way of reporting that the first line quality assurance inspectors were allowing items to pass their inspection which, in fact, did not meet applicable QA standards.

The notification points out that Consumers Power has suspended all Cadweld splicing operations at the site and that those operations would not be resumed until certain specified corrective action had been taken. It is further indicated, however, that "[o]ther unrelated work will continue at the site".

The Midland construction permit proceeding is, of course, no longer before the Appeal Board which had been assigned to it. Indeed, the period of time allotted for Commission review of the last Appeal Board decision in the proceeding has now elapsed, with the result that there has been final agency action (which is subject, of course, to the outcome

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of the judicial review which is now in progress). Accordingly, the Midland Appeal Board clearly lacks jurisdiction to take official cognizance of the irregularities disclosed by the inspection, let alone issue any orders with respect thereto.

Nonetheless, in view of the record that was adduced during the course of the adjudicatory proceeding as well as of certain rulings which were made therein, the members of the Midland Appeal Board feel constrained to record (1) their extreme dismay respecting this latest development; and (2) their firm belief that more drastic action against Consumers Power and its architect-engineer should be promptly considered. In this connection, had the construction permit proceeding still been before our Board at the time that the results of the November 6-8 inspection were announced, it is a virtual certainty that we would have ordered forthwith a cessation of all construction activities -- to continue in effect at least until such time as properly trained quality assurance inspectors, fully independent of the construction organization, were available on site. We shall briefly outline the reasons why we would have taken that action.

1. As you will recall, in ALAB-106, RAI-73-3 182 (March 26, 1973), we dealt specifically with the contention of one of the intervenor groups (the Saginaw Intervenors) that the evidence of record established that the applicant is "incapable of, and cannot be relied upon to, perform adequate quality assurance and quality control". Based upon our review of the evidence relating to the work at the Midland site performed under an exemption, we made the express finding that "neither the applicant nor the architect-engineer has provided reasonable assurance that the QA program will be implemented properly * * * . They have in this project not demonstrated their concern with maintaining QA programs in synchronization with their construction programs, nor have they demonstrated that they will have properly trained people on site to implement the QA program". Id. at 185. One of the considerations which led to this finding was the disclosure in one inspection report of record that "the QA and QC inspection personnel present at the concrete pour location did not promptly identify and correct apparent deviations from the ACI-301 Standard regarding consolidation of concrete". Ibid.

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Because of the "no reasonable assurance" determination found to be compelled by the record, we gave serious thought to revoking the construction permits which had been issued under the Licensing Board's authorization. We did not do so only because (1) the prior failures of the applicant and the architect-engineer to observe required QA practices and procedures had occured in 1970 (before the construction work under the exemption had terminated); and (2) we had the solemn assurance of the applicant that all of those prior deficiencies were being rectified as construction was being resumed under the permits. In the circumstances, we thought it would be enough to impose specific reporting conditions which were designed to make certain that the applicant was making good on its promise and that there would be an adequate QA program for the resumed construction.

On the basis of one of the reports called for by ALAB-106, and a number of inspection reports supplied by the staff in response to a later order of the Board (and a request of one of its members), we denied in ALAB-147, RAI-73-9 636 (September 18, 1973), the motion of the Saginaw Intervenors to revoke, or stay the effect of, the construction permits pending a definitive determination that the applicant and the architect-engineer were complying and would continue to comply with the QA regulations in constructing the Midland facility. We found that "there is now a reasonable assurance that appropriate QA action is being taken by the applicant" and also that, apart from a deficiency which we perceived in its QA organization, there was no QA problem pertaining to the architect-engineer requiring a direction of corrective action. Id. at 637, 640 (Fn. 10).

2. Against this background, our present concern should not be difficult to understand. The only reasonable conclusion which we can draw from the disclosures of the November 6-8 inspection is that the assurances which we had received from the applicant were false and that, in point of fact, it and the architect-engineer still have not manifested both an ability and a willingness to take the steps necessary to insure proper QA activities. Indeed, the QA deficiency referred to in the notification bears a startling resemblance to the deficiency referred to in ALAB-106 respecting the QA and QC personnel present at the

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concrete pour location (which is mentioned above). It would thus appear, with the benefit of hindsight, that it was not enough for us simply to impose reporting conditions in ALAB-106. It also seems evident that, contrary to our finding in ALAB-147 (which necessarily was founded on the materials then before us), there is not a reasonable assurance that appropriate QA action is now being taken. If anything, there is a solid assurance that exactly the opposite is the case.

3. A few weeks ago, two of the members of this Board requested and obtained a meeting with you and several other regulatory officials to explore the question of the extent to which the QA "track record" of an applicant or architect-engineer is taken into account by the staff in its appraisal of applications for construction permits. While that discussion was wholly generic and intentionally was not addressed to any specific reactor, it obviously has a special significance to the present situation regarding Midland. If we recall correctly, we were told that the point might be reached where the staff would be compelled to conclude that incorrigibility was involved, and then to act accordingly. Whether or not we would agree that a bad "track record" should come into play only in such extreme circumstances, this case would seem to meet your own test. What we have here is a pattern of repeated, flagrant and significant QA violations of a non-routine character -- coupled with an unredeemed promise of reformation.

The staff has dealt affirmatively with this most recently detected serious QA shortcoming by requiring the prompt suspension of all Cadweld splicing pending the taking of necessary corrective action. But there remains the unresolved question as to whether the same or equally serious QA shortcomings may be infecting other aspects of the construction work. It is difficult to understand how any construction activity can be allowed to proceed until that question is settled.

4. We would make only this one further observation. We expressly noted in ALAB-106 that the "staff's enforcement responsibilities are in no way limited by the [reporting] conditions herein prescribed, and the staff is free to take any remedial action over and above these conditions which it may deem necessary". RAI-73-3 at 186.

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We did not (and, of course, could not appropriately) attempt to direct that, if a particular situation were to arise, the staff should pursue a specific course. Once the adjudicatory proceeding is over, the on-going supervision of construction activities is your function and not ours. But implicit in that statement -- and in the choice we made not to revoke the construction permit -- was the assumption that the staff would not countenance for long a continuation of the deplorable QA performance which the record revealed had obtained during the construction work under the exemption.

Alan S. Rosenthal

John H. Buck

William C. Parler

cc: Commissioner William O. Doub

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